Approved Minutes of the

Electrical & Instrumentation State Apprenticeship Advisory Committee

May 7, 2018
Waukesha County Technical College
Pewaukee, WI

Members Present	Employer / Organization
Butt, Nate	Quad Graphics
Cannestra, Anthony	GE Healthcare
Lundey, Dave	MMSD
Otte, Sonia	Sargento Foods Inc
Woehlke, Scott	Mercury Marine
Members Absent	**Employer / Organization**
Cestkowksi, Jim	MPI
Fitzsimons, Mark	MillerCoors
Hafeman, Brian	PCA
Hankwitz, Dan	Kimberly Clark Corp
Roach, Mike	Trane Co.
Consultants & Guests	**Employer / Organization**
Badger, Richard	Bureau of Apprenticeship Standards
Bergholte, Jason	Waukesha County Technical College
Budda, Tim	Bureau of Apprenticeship Standards
Cattelino, Mike	Fox Valley Technical College
Johnson, Joshua	Bureau of Apprenticeship Standards
Kargel, Nancy	Bureau of Apprenticeship Standards
Merbach, Mike	Fox Valley Technical College
Montgomery, Mark	Waukesha County Technical College
Polk, David	Milwaukee Area Technical College
Randall, Bob	Brakebush
Salzwedel, Bill	Former committee member
Smith, Owen	Bureau of Apprenticeship Standards
Vander Heyden, Steve	Bureau of Apprenticeship Standards

1. The meeting was called to order at 10:00 a.m. by Tony Cannestra, Committee Co-Chair, in conformance with the Wisconsin Open Meeting Law.

2. A roll call was conducted. A sign-in sheet was circulated. A quorum was present.

3. The committee reviewed the current roster. The committee advised the Bureau to increase the committee size from 10 to 12 members by adding representatives from Brakebush, New Page, Expera Specialty Solutions, and a sponsor from the northwest to serve as an Employee member. The Bureau will recruit an appropriate sponsor.

4. <u>Old Business</u>

a. Review the follow-up items from the previous meeting:

<u>i. **For action:** approve the minutes</u>

The committee approved the minutes as written.

<u>ii. **For action:** review and revise Electronic & Instrumentation registered apprenticeship</u>

Owen reviewed that the state committee had expressed concern that the Electronic & Instrumentation Technician registered apprenticeship may need to be updated because the occupation now commonly includes automation; the current focus on instrumentation may need to be reduced or replaced with automation. He explained that the Worldwide Instructional Design System conducted a modified DACUM workshop with a focus group of current sponsors of the trade from all areas of the state. He gave the floor to Val Belinski of WIDS.

Val reviewed the results of the modified DACUM and the focus group's recommended revisions to on-the-job learning and related instruction.

The state committee expressed strong concern that the recommendations may not meet the needs of all E&I Technician sponsors because the modified DACUM did not account for the fact that the E&I Technician registered apprenticeship uses the Industrial Electrician registered apprenticeship as a foundation. In addition, the Industrial Electrician registered apprenticeship was revised extensively by the state committee last year. Thus, the committee argued, the proposed revisions that incorporate automation go away from the base of the Industrial Electrician apprenticeship.

Action: the Bureau agreed do conduct a second validation survey of the DACUM and proposed revisions with a larger sample of E&I Technician sponsors and convene a broader focus group to review the results and recommend next steps. The focus group will include current sponsors, state committee members, technical college staff, and potential sponsors.

b. Revisions to CFR 29.30 (AA/EEO requirements)

Josh reported that the Bureau has yet to receive further guidance from the U.S. Department of Labor. Therefore, the Bureau's message to state committees and sponsors continues to be, "stay tuned." To prepare for the revisions, the Bureau recently trained all apprenticeship training representatives (ATRs) in affirmative action / equal employment opportunity matters, such as CFR 29.29 and how to conduct compliance reviews. The Bureau expects to receive the guidance before the committee's fall meeting.

Attendees did not have questions or comments.

c. WI 2017 Act 148

Josh reported that this law set the apprentice-to-journey worker ratio at 1:1 for all apprenticeship programs and removed the Bureau's ability to modify the ratio. Although the law applies to the machine tool registered apprenticeships, the programs will not be affected because they already use a 1:1 ratio. The law will have the greatest effect on construction programs. In addition, the law would be superseded by a collective bargaining agreement.

Attendees did not have questions or comments.

d. Federal grants to expand "registered" apprenticeship

Josh reported that the Bureau has almost begun the third year of the five-year WAGE$ grant. Through the grant, the Bureau has been expanding registered apprenticeship into advanced manufacturing, health care, and information technology occupations. It's additional focus is expanding the recruitment and retainment of women and minority apprentices.

Expanding recruitment and retainment of women and minority apprentices is also the focus of the state expansion grant, for which the Bureau recently received an $1.5 million extension. The expansion grant will focus on recruitment and retainment on large construction projects in Madison and Milwaukee.

The Bureau's used its third grant, the state accelerator grant, to increase its capacity for administering programs, primarily by upgrading its information management system with BASERS.

Attendees did not have questions or comments.

e. Federal executive order to expand "apprenticeship"

Josh reviewed that the executive order will create an additional method for industries to create apprenticeships: "industry-recognized" apprenticeships, which will feature less government oversight and regulations for sponsorship. The federal task force charged with recommending the overall implementation of the order submitted its final report to the executive office, which is included in the state committee's meeting material. In accordance with its bylaws, the task force will disband within 30 days. It is unknown when the President's office will review the recommendations and make its final decisions.

Josh noted that industry-recognized apprenticeships will be piloted in industries new to apprenticeship, not in sectors that use registered apprenticeship. The Bureau does not have further details and is awaiting guidance from the Department of Labor.

The state committee asked whether graduates of industry-recognized apprenticeships would receive a license or other credential. Josh replied that credentials and many other components of industry-recognized apprenticeship remain to be seen.

The state committee asked whether Wisconsin companies will have the option to choose a registered apprenticeship or an industry-recognized apprenticeship. Josh answered that the programs are projected to operate parallel to each other, but much remains to be determined as to how.

f. Bureau of Apprenticeship Standards Electronic Registration System (BASERS)
Josh reported that the Bureau has implemented the Bureau of Apprenticeship Standards Electronic Registration System (BASERS), an online application that allows sponsors to conduct application and contract actions entirely online. Many sponsors have already adopted it. It is not mandatory; it is optional. The Bureau believes sponsors will see its value and efficiency.

The state committee asked whether BASERS is similar to the federal system, RAPIDS. Yes, Josh replied; BASERS is modeled after RAPIDS.

The state committee expressed concern that BASERS not replace face-to-face interactions between sponsors and apprentices. Josh replied that many sponsors value face-to-face interactions with apprentices and build them into their application and review processes. BASERS is designed to streamline all stages of contract management, but not replace the interaction. In fact, BASERS can be used in conjunction with face-to-face meetings. For example, many sponsors require apprentices to attend a face-to-face orientation during which they officially sign their contract electronically.

g. Apprenticeship LEADERS Initiative
Josh reviewed that the LEADERS initiative launched during the 2017 National Apprenticeship Week. It recently made its first recommendation to the Bureau: an interactive web-based map of stakeholders. The map would have multiple layers that correspond to categories of stakeholders, e.g. LEADERS members, technical colleges, workforce development boards, etc. The user would select a layer; stakeholders, their locations would appear across the map; and the user would click on a stakeholder's icon for contact information. He noted stakeholders can still apply to LEADERS.

Attendees did not have questions or comments.

h. Apprenticeship Completion Award Program
Josh reported that the program was renewed last fall for an additional two years, as part of the Governor's biennial budget. Apprentices that became eligible between the conclusion of the first iteration and the renewal will be grandfathered in. The program will conclude on June 30, 2020.

Attendees did not have questions or comments.

i. Other
Attendees did not have additional topics.

5. <u>New Business</u>

a. National Association of State and Territorial Apprenticeship Directors conference
Josh reported that the National Association of State & Territorial Apprenticeship Directors will hold its annual summer conference in Milwaukee from July 29 – August 3. The attendees will be joined by regional directors of the U.S. Department of Labor for a portion of the conference. NASTAD, not BAS, is seeking sponsorship opportunities for the event.

Attendees did not have questions or comments.

b. BAS visited by representatives of Japan and Mississippi

Josh reported that the Bureau hosted separate learning exchanges with delegations from a prefecture (state) government in Japan and the registered apprenticeship program in Mississippi. Both delegations were exploring solutions to the skills gap and were impressed with employer involvement in and the flexibility of Wisconsin's program.

Attendees did not have questions or comments.

c. Registered apprenticeship in correctional facilities

Josh reported that the Bureau is researching strategic partnerships and outreach activities to create greater opportunities in and with correctional facilities. The effort resulted from a recent visit to correctional facilities in Ohio, which have a vast number of registered apprenticeship programs and participants: Ohio has 2,500 registered apprentices within correctional facilities; Wisconsin has 52. The trip influenced the Bureau to view correctional facilities as an untapped talent pool, especially because labor trends indicate employers should begin considering unconventional talent pools.

Josh noted that the Bureau will initially research work-release programs at minimum security facilities and then explore models that combine training in the facility with training upon release.

Attendees did not have questions or comments.

d. Registered apprenticeship on www.jobcenterofwisconsin.com

Josh reported that registered apprenticeship sponsors can now post apprenticeship opportunities on JobCenterOfWisconsin.com for free, and the posting will be denoted with the Wisconsin Apprenticeship "A" logo. These features are the product of efforts between JCW and Bureau staff to promote registered apprenticeship opportunities to employers and career seekers alike. The two staffs are also improving the search function to yield only official apprenticeship opportunities and exclude informal or unofficial opportunities that use the word "apprenticeship."

The state committee asked whether the point of the initiative is to connect jobseekers and employers. Yes, Josh replied. The Bureau does not have a "magical list of sponsors that are hiring." It is Bureau policy to not provide case management to job seekers or assist in the job-seeking process. Instead, the Bureau becomes involved once the formal application process begins.

A consultant suggested that the Bureau create an online tutorial for sponsors and job seekers that on how to post and search for announcements.

> *Action: the Bureau will discuss internally whether to create a tutorial for creating and searching for registered apprenticeship opportunities on JobCenterOfWisconsin.com.*

e. BAS website changes

Josh reported that the Bureau is developing a revised version of its homepage. The revisions were prompted by input from Job Center of Wisconsin staff that the page was difficult for career seekers to navigate. The revised homepage will feature boxes based on user group; two buttons per box that link to the top functions performed by each user group; and a drop-down menu for quickly accessing webpages to specific apprenticeable occupations.

Attendees did not have questions or comments.

f. BAS personnel changes

Josh reported the following changes. Vincent Rice, policy analyst in Madison, accepted an external position. The new policy analyst in Madison is Matthew White. Hafeezah Ahmad, ATR for Milwaukee, retired. The new ATRs for Milwaukee are Nick Abbott and Steve Vander Heyden. The Bureau will receive three new ATR positions from the state legislature. They will focus specifically on the manufacturing sector and will be located in Appleton, Milwaukee, and Wausau.

Attendees did not have questions or comments.

g. Other

Attendees did not have additional topics.

6. WTCS Update

A representative of the WTCS system office was not present, so Mark Montgomery reviewed highlights of the latest "WTCS Apprenticeship Completer Report." He noted that median earning of registered apprenticeship completers across all trades increased by six percent and 43% of survey respondents expressed interest in pursuing further education. In addition, the average annual earnings across all trades is approximately $65,000. The wage data are aggregated.

Attendees did not have questions or comments.

7. Participants included 619 apprentices and 234 sponsors with a contract in active or unassigned status on May 4, 2018.

8. The committee tentatively scheduled its next meeting for Wednesday, October 31, at Mercury Marine in Appleton.

9. The meeting adjourned at 12:10 p.m.

10. **Follow-up items**

BAS will recruit additional committee members.
BAS will administer a second validation survey to more sponsors and convene a focus group.
BAS will discuss whether to develop a guide to posting and researching RA opportunities on JCW.

_____

Submitted by Owen Smith,
Bureau of Apprenticeship Standards

Department of Workforce Development
Employment and Training Division
Bureau of Apprenticeship Standards
201 E. Washington Ave., Room E100
P.O. Box 7972
Madison, WI 53707-7972
Telephone: (608) 266-3332
Fax: (608) 266-0766
Email: DWDDET@dwd.wisconsin.gov

STATE OF WISCONSIN
DWD
Department of Workforce Development

Scott Walker, Governor
Ray Allen, Secretary
Chytania Brown, Division Administrator

May 4, 2018

TO: State E&I Apprenticeship Advisory Committee Members and Consultants

FROM: Owen Smith, Bureau of Apprenticeship Standards
(608) 266-2491; Owen.Smith@dwd.wisconsin.gov

SUBJECT: State Electrical & Instrumentation Apprenticeship Advisory Committee meeting

DATE: Monday, May 7, 2018

TIME: 10:00 AM

PLACE: Waukesha County Technical College
Building Q, Room 365-369 *(see enclosed instructions)*
800 Main St.
Pewaukee, WI

TENTATIVE AGENDA

1. Call the meeting to order. Welcome by GE Health care.

2. Introduce the attendees.

3. Review the roster.

4. **Old Business**
   a. Review the follow-up items from the previous meeting:
      i. **For action:** approve the minutes
      ii. **For action:** review and revise Electronic & Instrumentation registered apprenticeship
   b. Update on implementing revisions to CFR 29.30 (AA/EEO requirements)
   c. Update on WI 2017 WI Act 148 (apprentice-to-journeyworker ratio)
   d. Update on federal grants to expand "registered apprenticeship"
   e. Update on Presidential executive order to expand "apprenticeship"
   f. Update on Bureau of Apprenticeship Standards Electronic Registration System (BASERS)
   g. Update on Apprenticeship LEADERs initiative
   h. Update on Apprenticeship Completion Award Program
   i. Other

5. New Business

a. National Association of State & Territorial Apprenticeship Directors (NASTAD) Conference
b. Registered apprenticeship on JobCenterOfWisconsin.com
c. Registered apprenticeship in correctional facilities
d. Learning exchanges with Japan and Mississippi
e. BAS website changes
f. BAS personnel changes
d. Other

6. WTCS Update

7. Review the program participants.

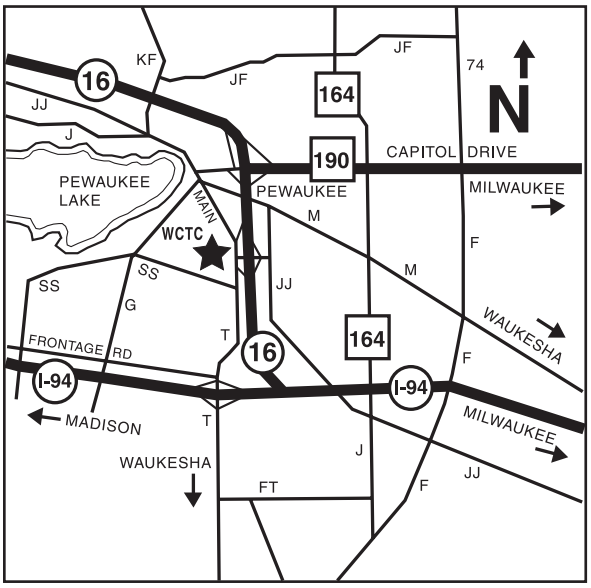
8. Schedule the next meeting.

9. Adjourn.

WAUKESHA COUNTY TECHNICAL COLLEGE

PEWAUKEE CAMPUS • 800 Main Street • Pewaukee, Wisconsin 53072

A	Building A
B	Business Building
C	College Center
D	Heat Plant
E	Electronics Building
F	Fire Training Area
G	Graphics Building
H	Health Building
I	Industrial Building
K	Bookstore
L	Building L
Q	Harry V. Quadracci Education and Technology Center
RTA	Richard T. Anderson Education Center
S	Service Building
T	Transportation Building
W	Workforce Development Center
◆	Parking



To WCTC Pewaukee Campus

Coming from the east on Hwy. 190 (Capitol Drive):
- Travel west on Capitol Drive. Turn left onto Hwy. 16 East.
- Take first exit, Main Street (exit 188).
- Turn left off hwy. ramp and proceed to the WCTC main entrance on right.

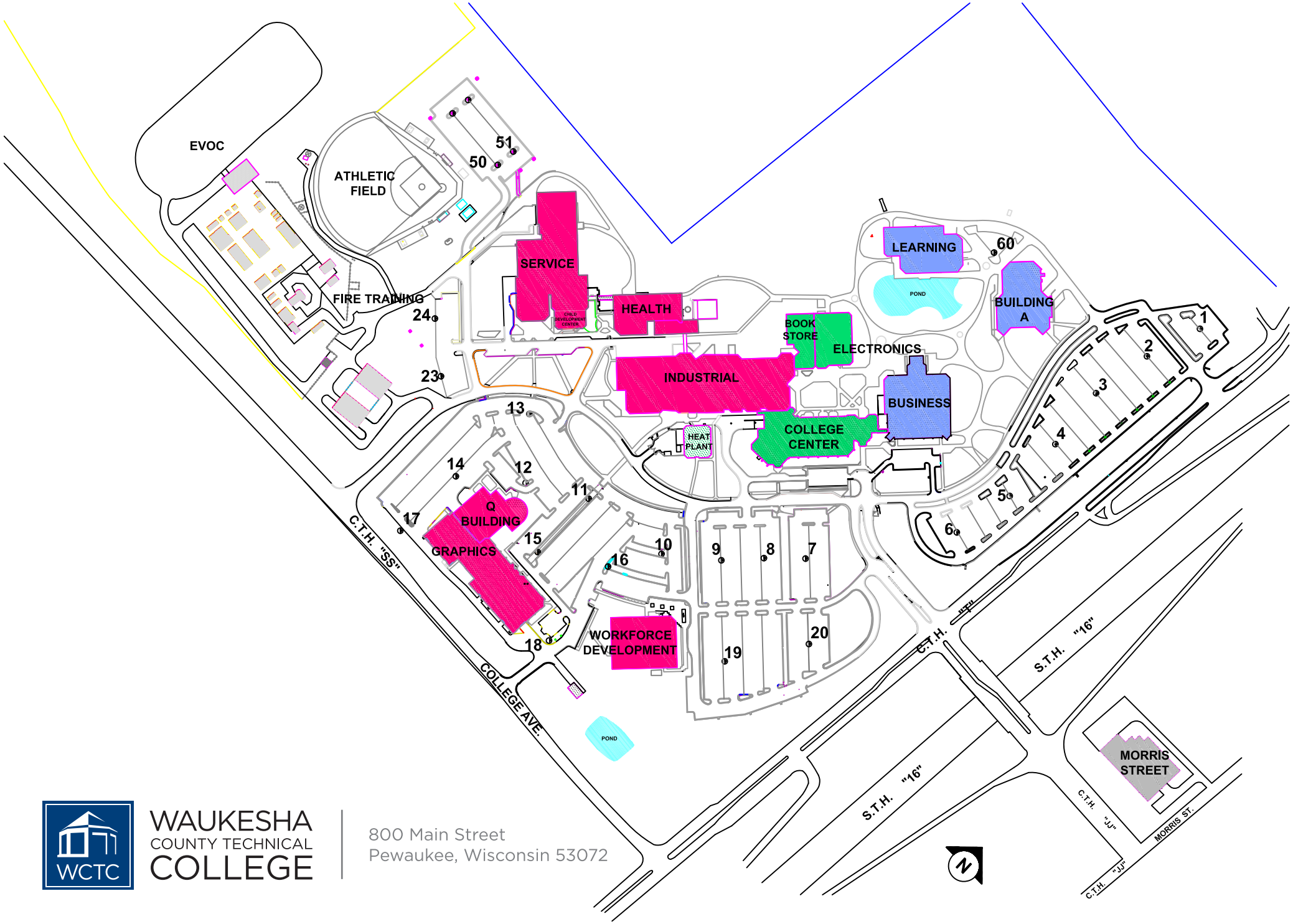
Coming from the east on I-94:
- Travel west on I-94. Exit onto Hwy. 16 West (exit 293C).
- Continue to first exit, Main Street (exit 188).
- Turn left off hwy. ramp and proceed straight into the WCTC main entrance.

Coming from the west on I-94:
- Travel east on I-94. Exit Hwy. T (exit 293).
- Turn left onto Hwy. T.
- Follow Hwy. T North about 2 miles to the WCTC main entrance on left.

Coming from the west on Hwy. 16:
- Travel east on Hwy. 16 East. Exit Main Street (exit 188).
- Turn left off hwy. ramp and proceed to the WCTC main entrance on right.

WAUKESHA COUNTY TECHNICAL COLLEGE

3863/13



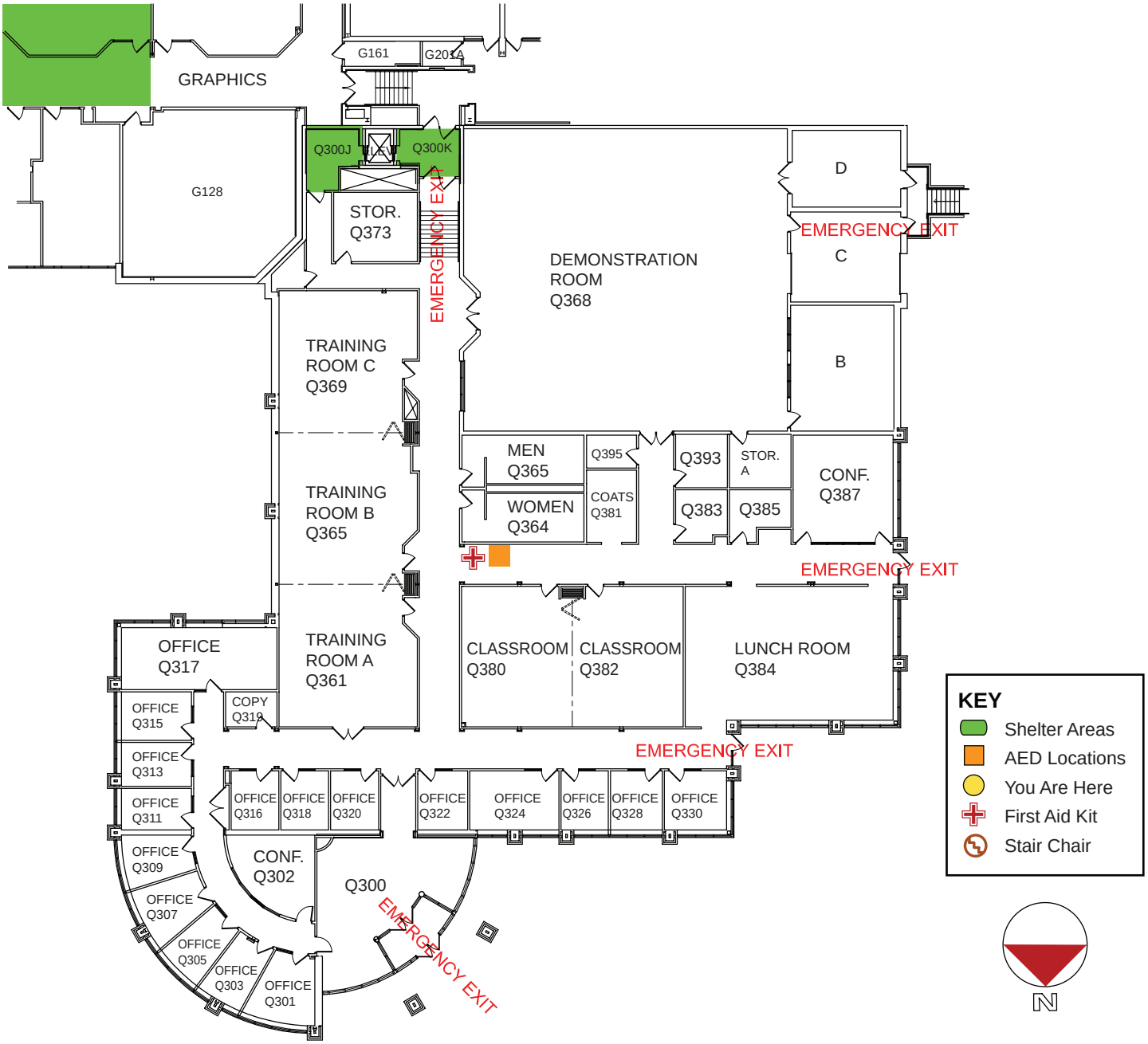
WAUKESHA COUNTY TECHNICAL COLLEGE

800 Main Street
Pewaukee, Wisconsin 53072

6159/16

Emergency Evacuation Map

In an Emergency call 911 for Police, Fire and Medical Assistance



FOR SEVERE WEATHER PROCEED TO THE GRAPHICS BUILDING.

Q BUILDING
EVACUATION STAGING AREA:
Light Post #12

Q BUILDING

WAUKESHA COUNTY TECHNICAL COLLEGE

Electrical & Instrumentation Apprenticeship Modified DACUM

Sponsoring Organizations

Wisconsin Technical College System
Bureau of Apprenticeship Standards, WI Department of Workforce Development

Date of Modified DACUM

Wednesday, February 7, 2018

Organized By

Owen Smith, Bureau of Apprenticeship Standards, WI Department of Workforce Development
Nancy Nakkoul, Wisconsin Technical College System

Facilitated By

Val Bielinski, WIDS-WTCS Foundation

Description

Electrical & Instrumentation Technicians install, service, troubleshoot; and perform preventive and predictive maintenance functions on equipment. This includes plant lighting equipment and receptacle circuits, motors, starters, motor control centers, programmable controllers, control panels, electrical control systems and transformers. They may also service high voltage electrical systems, and ensure that work is in accordance with relevant codes. They repair, test, adjust, calibrate or install electronic equipment, such as industrial controls, transmitters, and antennas. The program is approved at NATC, NWTC and NTC. In addition several other colleges have related programs in industrial electrician apprenticeships. Contact one of the colleges for more information.

DACUM Panel of Experts

Participant	Title	Organization
Paul McGinnis	paul.mcginnis@domtar.com;	Domtar
Steve Dressel	sdressel@gbp.com;	Green Bay Packaging
Greg Vigesaa	Gregory.Vigesaa@millercoors.com;	Miller Coors
Jon Bartel	jon.bartel@neenah.com;	Neenah Paper
Bob Randall	brandall@brakebush.com;	Brakebush

Electrical & Instrumentation Modified DACUM - 2018

Source: State Electrical and Instrumentation Technician Exhibit A - Program Provisions, approved November 10, 2011

Approx. Hours		Work Process/DUTY	TASKS						
1500	A	**Maintain General Electrical Equipment**	**A1** Service existing electrical and electrical related equipment	**A2 *** Maintain existing electrical and electrical related equipment (see list at right)	**A3** Maintain service test equipment: VOM ~~voltometers~~, multimeter, ~~ammeters, ohmmeters, oscillioscope~~, brush records, and other equip.		***A2 Equipment:** Lighting Receptacle circuits Motors Starters Relays	Push buttons Limit switches ~~Special~~ Programmable control switches Timers Counters Motor Control Centers	Control panels Transformers Read blueprint/electrical schematics
500	B	**Install and Maintain Power Distribution**	**B1** Install and Maintain High voltage transformers	**B2** Install and Maintain Switchgear	**B3** Install and Maintain Circuit breakers	**B4** Install and Maintain Starters	**B5** Install and Maintain Motors	**B6** Install and Maintain Transmission Lines	Arcflash Sensors, Relays, Meeting NFPA70E Qualifications
1000	C	**Construct & Install Electrical Equipment**	**C1** Install new electrical equipment, including lighting and power circuits	**C2** Layout conduit and fixture location	**C3** Perform layout and location efficiently and economically	**C4** Bend and thread conduit	**C5** Install proper hangers	**C6** Pull wires	**C7** Install and hookup motors
			C8 Install and hookup control cabinets	**C9** Install and hookup switches	**C10** Install and hookup bus bar work	**C11** Install and hookup electronic equipment	**C12** Install and hookup any high or low voltage electrical equipment	**C13** Perform installation with high quality workmanship	

DRAFT

1500	**D**	**Maintain and Troubleshoot Electronic Equipment**	**D1** Service and maintain all electronic equipment (See list at right)	**D2** Use necessary test equipment to service equipment	**~~D3~~** ~~DCS/VFD/PLC's/~~ ~~Servo Controls~~ ~~Drive Systems~~ ~~Programmable controllers~~ ~~*(Addresses integrated devices)*~~	**D1 Equipment:** Drive Systems Programmable controllers Microprocessors (Standalone & Integrated Systems) ~~Recorders~~	~~Counters~~ Speed Indicators Process Control type equipment Other electronic equipment	Encoders	
3000	**D 2**	**Maintain and Troubleshoot Automation Systems**	**D2-1** Maintain and troubleshoot DCS	**D3** VFD/	**D3** PLC's/	**D3** Servo Controls	D4 Robotics Automated Equip	D5 Networking (wireless technologies)	D6 Computers and associated software Wireless Controls (troubleshooting)
140	**E**	**Maintain Pressure Instruments**	**E1** Adjust pressure measuring and recording devices	**E2** Calibrate pressure measuring and recording devices	**E3** Repair and replace damaged parts				
185	**F**	**Maintain Temperature Instruments**	**F1** Adjust temperature measuring and recording devices	**F2** Calibrate temperature measuring and recording devices	**F3** Repair and replace damaged parts				
185	**G**	**Maintain Level Measurement Equipment**	**G1** Adjust level measuring and recording devices	**G2** Calibrate level measuring and recording devices	**G3** Repair and replace damaged parts				

DRAFT

182	**H**	**Maintain Flow Measuring and Control Systems**	**H1** Repair flow measurement and control systems	**H2** Adjust flow measurement and control systems	**H3** Calibrate flow measurement and control systems	**H4** Inspect flow measurement and control systems	**H5** Compute flow of data and flow of solids in suspension	Mechanical and electrical devices Variable orifice-fixed	Variable orifice-volumetric
200	**I**	**Repair Instrument Mechanisms**	**I1** Learn mechanical operations of instruments	**I2** Repair, adjust, and replace worn parts, gears, racks segments, hair springs, jewel bearings, and clock works	**I3** Repair and replace electrical contacts and coils	**I4** Repair hydraulically operated valves, diaphragm valves, and solenoid operated valves			
450	**J**	**Control Valves and Devices**	**J1** Adjust control valves, diaphragms, hydraulic cylinders, hydraulic valves, floats, and dampers	**J2** Adjust pneumatics, electric, and electronic controls.	Interface Communications (i.e. HART)				
650	**K**	**Instrument Shop**	**K1** Troubleshoot general shop and field mechanics	**K2** Inspect, adjust, repair, and calibrate misc. control and recording instruments	**K3** Work on special controls, special applications	**K4** Build and maintain panel installations	Continuous Emission Monitoring Programs Quality Control Systems (scanning equipment)		

300	**L**	**Maintain Safe Working Procedures**	**L1 Follow all equipment safety procedures**	**L2 Follow OSHA standards/ NFPA70E Compliance**	**L3** Follow ~~lockout and tagout procedures~~ Follow Appropriate Safety Procedures	**L4 Maintain CPR and First Aid certification**	**L5 Wear proper PPE**		

DRAFT

Electrical & Instrumentation Modified DACUM 2018

JOB TITLES

Does "Instrumentation" fit/is it appropriate anymore? Replace with Automation?

E&I Technician	Automation and Electrical Technician	
E&I Maintenance Technician		
Automation Technician		

OCCUPATIONAL TRENDS

Collaboration/Overlap with IT Services (E&I may do more IT-like tasks)	More app-based communications/devices	More devices are "throw-away" vs. repairable (less expensive, more efficient)
More Automation	More wireless communication	Technology changes faster
Increased data acquisition	More devices to measure and capture data	Devices "make decisions" more than a human
Challenge recruiting and retaining (employee turnover)	Aging workforce, brain/skill drain	Trade Blending (smaller companies) – doing more with same workforce or slower growing workforce

EQUIPMENT AND TOOLS

Vendors will bring "latest and greatest"	Reliability Equipment (i.e. PDMA, Vibration, Lube Mounts, Ultrasonic, Thermal)	NFPA70E (equipment etc.)
Mobil/wireless equipment		

KNOWLEDGE & TRAINING

NFPA (all)	Install and maintain computer hardware	System Networking
OSHA (all)	Navigate computer and software applications	

ATTITUDES & TRAITS

Communicate clearly	*Interact Tactfully*	*Think Analytically*
Display a sense of humor	*Manage Time Effectively*	*Work Independently*
Exhibit Patience	*Remain Calm Under Pressure*	*Work Meticulously*
Follow Directions (Entry Level)	*Team Player*	*Work Safely*

DRAFT

On the Job Learning Hour Distribution

The DACUM team recommends a redistribution of hours. See the table below to review recommended redistribution. Reduction of hours are highlighted in yellow. Additional skills and hour distribution is highlighted in green.

Current Hours	Recommended	Duty	Duty Description	Notes
2500	1500	A	Maintain General Electrical Equipment	Moved 1000 hours to new duty "M" addressing automation; minor changes to some tasks
500	500	B	Install and Maintain Power Distribution	Minor changes to some tasks; no change in hours
1000	500	C	Construct & Install Electrical Equipment	No change in tasks or hours
1500	500	D	Maintain and Troubleshoot Electronic Equipment	Moved 1000 hours to new duty "M" addressing automation; minor changes to some tasks
140	140	E	Maintain Pressure Instruments	No change in tasks or hours
185	185	F	Maintain Temperature Instruments	No change in tasks or hours
185	185	G	Maintain Level Measurement Equipment	No change in tasks or hours
182	182	H	Maintain Flow Measuring and Control Systems	No change in tasks or hours
200	200	I	Repair Instrument Mechanisms	No change in tasks or hours
450	450	J	Control Valves and Devices	Minor changes to some tasks; no change in hours
650	650	K	Instrument Shop	Minor changes to some tasks; no change in hours
0	3000	M	Maintain and Troubleshoot Automation Systems	New duty reflecting automation skills needed on the job
1600	1100		Optional Training	Moved 500 hours to new duty "M" addressing automation
9092	**9092**		**OJL Total**	No change in required hours
1008	1008		PRI	No change in required hours
300	300	L	Safety	
10400	**10400**		**Total**	No change in required hours

Recommendations have no impact total OJL or PRI hours, or apprenticeship configuration.

DRAFT

Curriculum Development

OJL and PRI documentation will need to be adjusted upon recommendation approval.

PRI Development/Revisions

Duty/Skill Development	Credits	Hours
Reduce Credits for Maintaining and troubleshooting general electrical equipment	4.0	148
Reduce Credits for Maintaining and troubleshooting electronic equipment	1.5	54
Reduce Credits for Optional Training	3.0	109
Add Credits for automation	8.5	306

OJL Development/Revisions

The Bureau of Apprenticeship Standards will make appropriate adjustments to Exhibit A and the Apprenticeship Training Guidelines Job Book upon recommendation approval.

Additional Recommendations:

The DACUM Team also recommends consideration to adding or changing the Apprenticeship name to reflect the increased focus on Automation.

DRAFT

State of Wisconsin

Date of enactment: **March 28, 2018**
2017 Assembly Bill 508 Date of publication*: **March 29, 2018**

2017 WISCONSIN ACT 148

AN ACT ***to repeal*** 106.02 and 106.025 (4); ***to amend*** 106.01 (1), 106.01 (9), 106.01 (11) (intro.), 106.025 (1) and 106.025 (2); and ***to create*** 106.015 of the statutes; **relating to:** apprentice−to−journeyworker ratios in apprenticeships and the minimum duration of carpentry and plumbing apprenticeships.

The people of the state of Wisconsin, represented in senate and assembly, do enact as follows:

SECTION 1. 106.01 (1) of the statutes is amended to read:

106.01 **(1)** FORMATION OF APPRENTICE CONTRACT. Any person 16 years of age or over may enter into an apprentice contract binding himself or herself to serve as an apprentice as provided in this section. ~~Except as provided in ss. 106.02 and 106.025, the~~ The term of service of an apprenticeship shall be for not less than one year. Every apprentice contract shall be in writing and shall be signed by the apprentice, the department, and the sponsor or an apprenticeship committee acting as the agent of the sponsor. If the apprentice has not reached 18 years of age, the apprentice contract shall also be signed by one of the apprentice's parents or, if both parents are deceased or legally incapable of giving consent, by the guardian of the apprentice or, if there is no guardian, by a deputy of the department. The department shall specify the provisions that are required to be included in an apprentice contract by rule promulgated under sub. (11).

SECTION 2. 106.01 (9) of the statutes is amended to read:

106.01 **(9)** AUTHORITY OF DEPARTMENT. The department, subject to s. 106.015, may investigate, fix reasonable classifications, issue rules and general or special orders, and hold hearings, make findings, and render orders upon its findings as necessary to carry out the intent and purposes of this section. The investigations, classifications, hearings, findings, and orders shall be made as provided in s. 103.005. Except as provided in sub. (8), the penalties specified in s. 103.005 (12) apply to violations of this section. Orders issued under this subsection are subject to review under ch. 227.

SECTION 3. 106.01 (11) (intro.) of the statutes is amended to read:

106.01 **(11)** RULES. (intro.) The department, subject to s. 106.015, shall promulgate rules to implement this section, including rules providing for all of the following:

SECTION 4. 106.015 of the statutes is created to read:

106.015 Apprentice–to–journeyworker ratios. (1) Except as provided in sub. (2), the department may not prescribe, enforce, or authorize, whether through the promulgation of a rule, the issuance of a general or special order, the approval of an apprenticeship program or apprentice contract, or otherwise, a ratio of apprentices to journeyworkers for apprenticeship programs or apprentice contracts that requires more than one journeyworker for each apprentice.

(2) The prohibition under sub. (1) does not apply with respect to apprentices whose employment is governed by a collective bargaining agreement.

---

* Section 991.11, WISCONSIN STATUTES: Effective date of acts. "Every act and every portion of an act enacted by the legislature over the governor's partial veto which does not expressly prescribe the time when it takes effect shall take effect on the day after its date of publication."

SECTION 5. 106.02 of the statutes is repealed.

SECTION 6. 106.025 (1) of the statutes is amended to read:

106.025 **(1)** The department may prescribe the conditions under which a person may serve a plumbing apprenticeship, as to preliminary and technical college attendance requirements, level of supervision of an apprentice, the character of plumbing work in accordance with ch. 145, and the credit for school attendance in serving the apprenticeship.

SECTION 7. 106.025 (2) of the statutes is amended to read:

106.025 **(2)** Every person commencing a plumbing apprenticeship shall enter into an apprentice contract under s. 106.01. ~~The term of a plumbing apprentice is 5 years, but the department may upon application of the apprentice, the apprentice's employer, or both, extend the term for up to one additional year.~~

SECTION 8. 106.025 (4) of the statutes is repealed.

WAGE$ Grant Metrics Update

(as of Dec. 31, 2017)

Presented to various state committees
Spring 2018 meetings

Background

Wisconsin Apprenticeship Growth and Expansion Strategies (WAGE$) is part of the American Apprenticeship Initiative - a competitively awarded federally funded 5-year grant being implemented between October 1, 2015 through September 30, 2020. WAGE$ will accelerate the introduction of Registered Apprenticeship into Advanced Manufacturing, IT, and Healthcare statewide. The overarching goal is to sign on at least 1,000 apprentices into the WAGE$ occupations by the end of the grant. Grant partners include the Wisconsin Technical College System and the eleven workforce development boards (WDBs.) Each WDB supervises at least one apprenticeship liaison who coordinates local activities and works with ATRs to conduct business outreach.

WAGE$ trades/occupations

1. Advanced Manufacturing (all Adv Mfg trades are completed = no additional occupations being developed for WAGE$)
    - Industrial Manufacturing Technician (existing before WAGE$)
    - Maintenance Technician (existing before WAGE$)
    - Welder – Fabricator (existing before WAGE$)
    - Welder – Automated Welding (existing before WAGE$)
    - Mechatronics Technician (newly created under WAGE$)
2. Information Technology (IT)
    - Software Developer (newly created under WAGE$, completed, NCWWDB/Midstate begins fall 2018)
    - IT Service Desk Technician (launch planned August 2018 contingent upon approval by WTCS Board; Waukesha Technical College is lead college. Program will become available statewide through interested technical colleges)
    - Data Analyst (launch planned August 2018 contingent upon approval by WTCS Board; Waukesha Technical College is lead college. Program will become available statewide through interested technical colleges)
    - Data Analyst (development in progress; expected completion late 2018; lead undetermined)
    - IT #4 = TBD
    - IT #5 = TBD
3. Health Care
    - Community Health Worker (was developed by Dept of Health Services; considered newly created; no participation to date)
    - Pharmacy Technician (development in progress; expected completion late 2018; lead undetermined)
    - Medical Assistant (development in progress; expected completion fall 2018; UW-Health is leading development and will conduct the training which will be open to SSM and Unity apprentices; the program will become available statewide through interested technical colleges)

The following table shows the status of the main grant deliverables. Statistics are usually calculated quarterly and after allowing time for parties to input their information. The statistics below were reported for the period ending December 2017. It expected that rate of increase in programs and sponsors will increase as more programs are developed and offered. As of December 31, 2017, only the five Advanced Manufacturing programs were active with Mechatronics having just started getting apprentices signed.

As of Dec. 31, 2017:
Proposed through 9/30/18 and
Actual as of 12/31/17

	To Date (end of reporting Q)		
Capacity Building & Employer Metrics	**Proposed to end of Year 3***	**Actual to 12/31/17****	**Total proposed to end of grant**
Total # of Employers to Benefit from the Grant Program	130	71	383
Total # of Promotional/ Outreach Activities to Employers	1,975	1,681	3,000
Total # of Newly Registered American Apprenticeship Programs (new trades developed with grant funds)	49	3**	100
Total # of Existing Registered Apprenticeship Programs to be Expanded (existing trades when the grant began but the trade having new apprentices in the grant performance period)	59	83	90
Employment & Training Metrics			
Total # of Participants to Receive Services Under this Grant (e.g includes participants served in pre-apprenticeship, apprenticeship, and by other grant activities)	2500	33,834	10,000
Total # of New Apprentices Registered	145	184***	1,000

* Year 3 ends 9/30/18

** As of 4/5/18, there are 13 sponsors for Mechatronics Technician and 33 Mechatronics Technician apprentices with signed contracts. Although Software Developer was completed, no apprentices had signed contracts yet due to the program not being fully implemented yet.

*** As of 4/5/18, there have been 259 contracts signed under the WAGE$ grant. This number is not corrected for transferred contracts (WAGE$ trade to WAGE$ trade or sponsor) of which there are approximately 5.

All ACAP Reimbursement Requests Processed (Time Period) - Summary

Apprenticeship Completion Award Program (ACAP)
Bureau of Apprenticeship Standards
Division of Employment and Training
4/6/18 08:07 AM

Filters Applied: Determination Date between 9/4/17 and 4/6/18, Fiscal Year(s)= FY18

Type	Fiscal Year	# of RRs	$Approved	$Denied
Year One	18		$64,842.15	$352,010.20
Year One Totals		**329**	**$64,842.15**	**$352,010.20**
Completion	18		$94,041.26	$487,402.45
Completion Totals		**159**	**$94,041.26**	**$487,402.45**
Report Totals		**488**	**$158,883.41**	**$839,412.65**

WISCONSIN TECHNICAL COLLEGE SYSTEM

WTCS System-Wide Activity Update for Spring 2018

- **WTCS Apprenticeship Completion Report**: The WTCS published the new Apprenticeship Completion Report in February 2018 with data from completers from 2015-16. http://www.wtcsystem.edu/wtcsexternal/cmspages/getdocumentfile.aspx?nodeguid=b3153b83-19ff-41d4-8527-39fe0e9c845c
    - Of 908 apprentice completers surveyed, 331 responded for a 36% response rate.
    - 98% indicated they were employed in the trade for which they received training, up 3% from the prior report.
    - Annual median earnings of $71,624 was reported across all sectors, a 6% increase from the prior year's report.
    - 97% indicated that they were very satisfied or satisfied with their paid-related instruction. For On-The-Job Training, 95% reported they were very satisfied or satisfied.
    - 43% are considering continuing their formal education, up significantly from 34% from the prior year's survey (i.e., Technical Studies Journey Worker AAS, associate degree, bachelor's degree)

- **WTCS Apprenticeship Enrollment Trend:** WTCS enrollments across all apprenticeship programs increased from 6128 to 6527 unduplicated, and 6633 to 7123 duplicated, students by the end of June 2017. That is a 6.5% and 7.4% increase, respectively, in one year. A current mid-year snapshot for 2017-18 is showing 6199 and 6634 enrollees. Confirmed actual enrollment for the 2017-18 academic year will not be available until August 2018.

- **Great Lakes Tools of the Trade/WTCS Apprenticeship Scholarships:** In a surprise announcement in December 2017, the Great Lakes Higher Education Foundation Board decided to increase the apprenticeship scholarship amount to $1500 per individual, and they are once again awarded 200 scholarships for industrial and construction sector apprentices in February 2018.

- **System-Wide Curriculum:** Collaborative work between all stakeholders continues for the following new or substantively revised system-wide apprenticeship curriculum during the 2017-18 Academic year.

NEW	Organic Vegetable Farm Manager	Auto Body Collision and Repair	IT-Data Analyst	IT-Service Desk	Pharmacy Technician	Financial Services Rep.
Revisions & Crosswalks	Electrical & Instrumentation	Plumbing Below the Line Courses	Crosswalk of Mechatronics to Electromechanical and Automated Systems	Crosswalk between Machinist Technical Diploma and Apprenticeship		ABC Electrical

Report Name COM-01 State Committee Report - Industrial & Service

Refresh Date 5/4/18 12:53 PM

Wisconsin Bureau of Apprenticeship Standards

State Committee Report
State Electrical & Instrumentation Comm

This summary counts employers and apprentices with a contract active or unassigned on 5/4/2018 in trade(s) associated with this committee.
Report is based on apprentice contracts where:

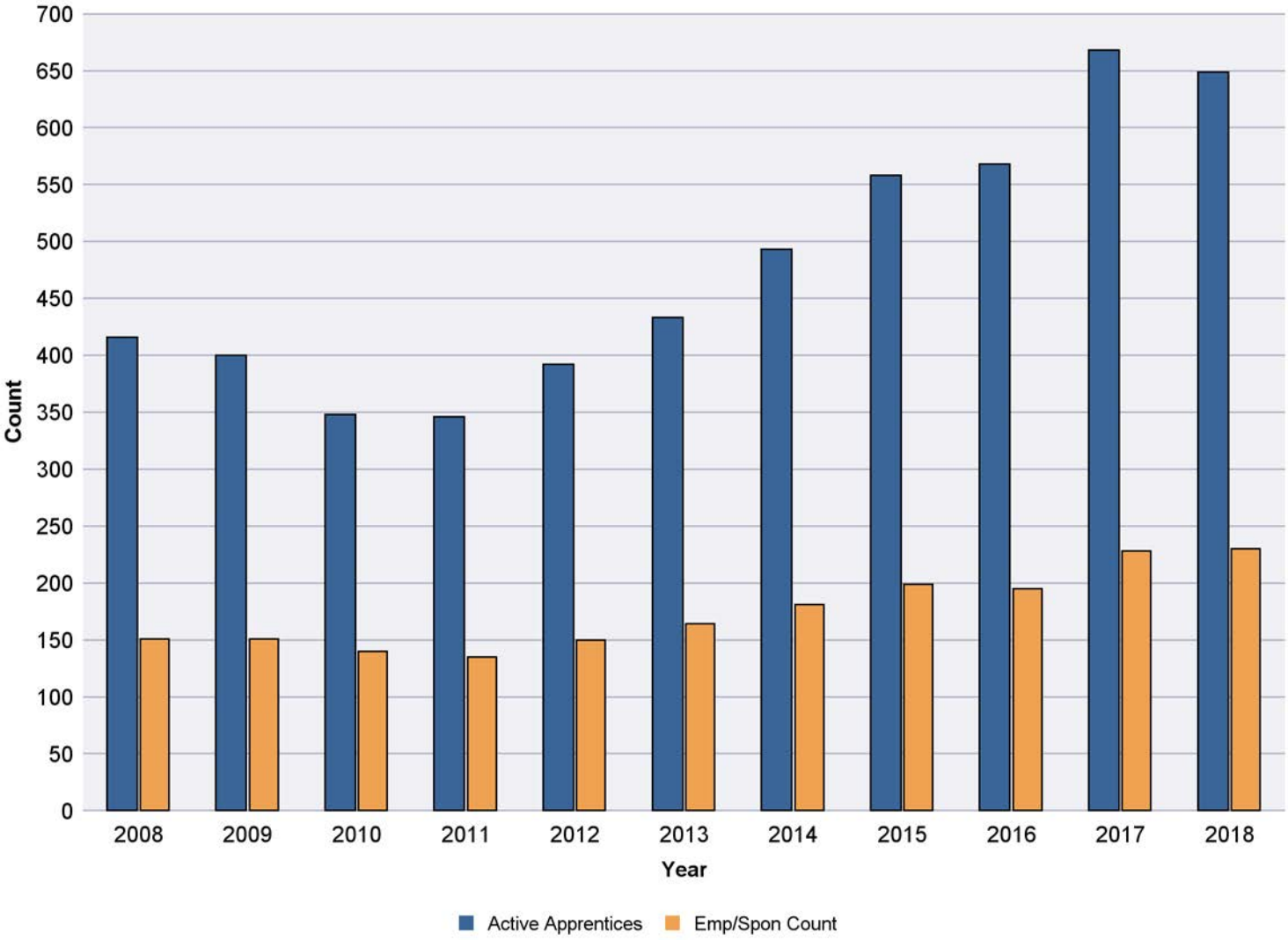
-Status is 'Active' or 'Unassigned'.
-Contract sector is 'Industrial' or 'Service'.
-Contract trade code matches a trade code assigned to committee.
-Contract sponsor is the employer.

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

Trade	Total # of Sponsors	Total # of Apprentices	Of Total Apprentices in Column 3, # who are...			
			Minority		Females	
			#	%	#	%
1	2	3	4	5	6	7
Report Total	**224**	**619**	**28**	**4.5**	**10**	**1.6**
Electrical and Instrumentation (E & I) Technician (271028101801)	39	149	3	2.0	2	1.3
Industrial Electrician (282926101801)	126	262	14	5.3	5	1.9
Maintenance Electrician (282926101802)	4	13	1	7.7	0	
Maintenance Technician (282926101805)	81	195	12	6.2	3	1.5

Report Name COM-02a
Refresh Date 5/4/18 12:55 PM

Wisconsin Bureau Of Apprenticeship Standards

State Electrical & Instrumentation Comm
Historical Report by Year
Report Period: 2018* and Previous 10 Years

*Current year is YTD data as of Run Date: 05/04/2018		
Run Date: 05/04/2018		
State Electrical & Instrumentation Comm		
Sponsored Trade Group(s): Industrial		
Year	**Active Apprentices**	**Active Sponsors**
2008	416	151
2009	400	151
2010	348	140
2011	346	135
2012	392	150
2013	433	164
2014	493	181
2015	558	199
2016	568	195
2017	668	228
2018	649	230