REQUEST AND RECOMMENDATION

ONE-YEAR OPTION
900+ Clock Hour Programs – Industrial Maintenance

Background:

To provide another option for adult students to apply prior learning toward a degree, Ohio legislators established what has come to be known as the One-Year Option through Section 363.120 House Bill 59 of the 130th General Assembly. The Chancellor of the Ohio Department of Higher Education, in consultation with the Superintendent of Public Instruction and the Governor's Office of Workforce Transformation, was tasked to establish a One-Year Option credit articulation system in which graduates of Ohio’s adult career-technical institutions who complete a 900-hour program of study AND obtain an industry-recognized credential approved by the Chancellor will be able to receive 30 technical semester credit hours toward a technical degree upon enrollment in a public institution of higher education. The Chancellor was also to recommend a process to award proportional semester credit hours for adult career-technical institution students who complete a program of study between 600 and 899 hours AND obtain an industry-recognized credential approved by the Chancellor. The Chancellor convened a broad group of stakeholders to develop a system of articulation for the One-Year Option that was presented in a report to the legislature called, “Getting to 30: Establishing a One-Year Option Credit Articulation System for Ohio.”

In order to implement the system of articulation developed with the stakeholders as well as address accreditation requirements for degree granting institutions, the Chancellor convened Credit Affirmation Teams (CATs) to conduct a peer review of programs and certifications for affirmation for a block of 30 semester hours of technical credit. The CATs were comprised of faculty and administrators from Ohio Technical Centers (OTCs) and an equal number from public degree granting colleges and universities in Ohio. The CATs were organized by four discipline clusters: Health and Allied Health, Building and Industrial Technology, Business and Information Technology, and Services. They were charged with reviewing the certifications and, if necessary, program content, to affirm that students completing the selected program at an Ohio Technical Center and earned approved certifications had demonstrated competencies equivalent to 30 semester hours of technical credit. This technical credit would then be granted, as a block, upon enrollment in a degree granting institution. Additional subject matter experts were consulted when core team members did not have sufficient content knowledge of the program being reviewed.
Recommendation

As detailed in the attached template, the Building and Industrial Technology Credit Affirmation Team recommends that students will be eligible for a block of 30 semester hours of technical credit towards an Associate of Technical Studies in Building and Industrial Technology when:

- the student has successfully completed a 900+ clock hour program in Industrial Maintenance at an Ohio Technical Center.

And currently holds ALL of the following credentials:

- NCCER Core
- NCCER Industrial Maintenance Mechanic Level 1
- NCCER Industrial Maintenance Mechanic Level 2
- NCCER Industrial Maintenance Mechanic Level 3
- OSHA 10- General Industry

Please note all certifications must be current and valid. Student must have completed the Ohio Technical Center program within 5 years.
End of Comment Period: August 18, 2016 at 12:45 pm
No comments received, recommend approval

RECOMMENDATION

The Vice Chancellor of Academic Affairs has verified that this pathway has met the standards and requirements of the Ohio Board of Regents.

Stephanie Davidson, Vice Chancellor of Academic Affairs  Date  8/19/16

APPROVAL

John Carey, Chancellor  Date  9/8/16
The Program Affirmation is designed to provide a common matrix for a peer review process acceptable to the Higher Learning Commission to soundly affirm 30 semester hours of technical credit for Ohio Technical Center graduates who are eligible for the One-Year Option. The template should be completed for every program/subject and signed by the co-chairs of each of the four-cluster program areas for every Industry-recognized credential and program reviewed.

Please note: All Ohio Technical Centers must be accredited by one of the following: Council on Occupational Education (COE) and/or Accrediting Commission of Career Schools and Colleges (ACCSC).

### Program Name:
Industrial Mechanics and Maintenance Technology

### CIP Code:
47.0303

### Cluster
- Business & Information Technologies
- Health/Allied Health
- Industrial Trades
- Service Industries & Agriculture

### CIP Code Definition
A program that prepares individuals to apply technical knowledge and skills to repair and maintain industrial machinery and equipment such as cranes, pumps, engines and motors, pneumatic tools, conveyor systems, production machinery, marine deck machinery, and steam propulsion, refinery, and pipeline-distribution systems.

### STEP ONE: CREDENTIAL REVIEW:

<table>
<thead>
<tr>
<th>Details/Explanation</th>
<th>Comments</th>
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</thead>
</table>
| **Primary Industry Credential (if there are competing certifications complete page multiple times)** | - NCCER Core
- NCCER Industrial Maintenance Mechanic Level 1
- NCCER Industrial Maintenance Mechanic Level 2
- NCCER Industrial Maintenance Mechanic Level 3 |
| **Name:** The National Center for Construction Education and Research (NCCER) Certifications | |
| **Type:** | |
| ☐ License | |
| ☐ Registry | |
| ☑ Certification | |
| **Program requirements by credentialing body.** | **About the Exams:** NCCER offers a complete series of entry- and journey-level written assessments as part of its National Craft Assessment and Certification Program (NCACP). These assessments evaluate the knowledge of an individual in a specific craft area and provide a prescription for upgrade training when needed. All assessments are based upon the NCCER Curriculum and have been developed in conjunction with Subject Matter Experts from the industry and Prov™, NCCER’s test |
### One-Year Option
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| Instructional hours | NCCER Core required instructional hours: 72.5  
|                     | NCCER IMM Level 1 required instructional hours: 122.5  
|                     | NCCER IMM Level 2 required instructional hours: 160  
|                     | NCCER IMM Level 3 required instructional hours: 155  

All competencies must be covered. Remaining 390 hours may vary per program based on local advisory business/industry committees.

| Competencies demonstrated by credential attainment. | NCCER Core Competencies:  
|                                                    | • Module 00101-09: Basic Safety  
|                                                    | • Module 00102-09: Introduction to Construction Math  
|                                                    | • Module 00103-09: Introduction to Hand Tools  
|                                                    | • Module 00104-09: Introduction to Power Tools  
|                                                    | • Module 00105-09: Introduction to Construction Drawings  
|                                                    | • Module 00106-09: Basic Rigging (Elective)  
|                                                    | • Module 00107-09: Basic Communication Skills  
|                                                    | • Module 00108-09: Basic Employability Skills  
|                                                    | • Module 00109-09: Introduction to Materials Handling  

Each equipment specific module typically contains operation, controls, maintenance, and safety guidelines.


NCCER’s accreditation process assures that students and craft professionals receive quality training based on uniform standards and criteria. Training Sponsors and Assessment Centers are subject to audit on a three year cycle.”

For more information, please see:  
http://www.nccer.org/assessments-performance-verifications?mID=616  

Development partner. Module assessments consist of knowledge verification via the successful completion of a written assessment. In addition to the knowledge verification, some modules also require successful completion of a practical performance in the laboratory setting.

**Renewal:** NCCER does not have a renewal option.

**Exam Integrity:** NCCER, through their testing partner Prov™, administers training module exams through a secure web-based platform, the Testing Management System. Module tests are created, launched, scored and electronically stored. Instructors and proctors are certified to NCCER requirements.

510 clock hours of instruction to complete NCCER Curriculum requirements.
### NCCER Industrial Maintenance Mechanic Level 1 Competencies
- Module 32101-07: Orientation to the Trade
- Module 32102-07: Tools of the Trade
- Module 32103-07: Fasteners and Anchors
- Module 32104-07: Oxyfuel Cutting
- Module 32105-07: Gaskets and Packing
- Module 32106-07: Craft-Related Mathematics
- Module 32107-07: Construction Drawings
- Module 32108-07: Pumps and Drivers
- Module 32109-07: Valves
- Module 32110-07: Introduction to Test Instruments
- Module 32111-07: Material Handling and Hand Rigging
- Module 32112-07: Mobile and Support Equipment
- Module 32113-07: Lubrication

### NCCER Industrial Maintenance Mechanic Level 2 Competencies
- Module 32201-07: Basic Layout
- Module 32202-07: Introduction to Piping Components
- Module 32203-07: Copper and Plastic Piping Practices
- Module 32204-07: Introduction to Ferrous Metal Piping Practices
- Module 32205-07: Identify, Install, and Maintain Valves
- Module 32206-07: Hydrostatic and Pneumatic Testing
- Module 32207-07: Introduction to Bearings
- Module 32208-07: Low-Pressure Steam Systems
- Module 32209-07: High-Pressure Steam Systems and Auxiliaries
- Module 32210-07: Distillation Towers and Vessels
- Module 32211-07: Heaters, Furnaces, Heat Exchangers, Cooling Towers, and Fin Fans
- Module 32212-07: Introduction to Tube Work

### NCCER Industrial Maintenance Mechanic Level 2

### NCCER Industrial Maintenance Mechanic Level 3
NCCER Industrial Maintenance Mechanic Level 3 Competencies

- Module 32301-08: Advanced Trade Math
- Module 32302-08: Precision Measuring Tools
- Module 32303-08: Installing Bearings
- Module 32304-08: Installing Couplings
- Module 32305-08: Setting Baseplates and Pre-alignment
- Module 32306-08: Conventional Alignment
- Module 32307-08: Installing Belt and Chain Drives
- Module 32308-08: Installing Mechanical Seals

Rationale:

The Trades and Industry Credit Affirmation Team (CAT) utilized the following process to complete the assessment regarding the number of semester hours that would be awarded at the college level as block credit based on the industry credentials plus 900-clock hours earned at an Ohio Technical Center (OTC).

- Research the competencies tested by the industry credential(s). The Trades and Industry CAT reviewed information about the industry credential(s) to determine the competencies signaled by earning the credential(s).
- Complete a nationwide internet search to review how other accredited colleges and universities are applying credit to NCCER Core, IMM 1, IMM 2 and IMM 3. Pima Community College awards 28.5 college credits towards an Associate of Applied Science degree in Business and Industry Technology to students of NCCER's accredited sponsors who successfully complete NCCER Core, IMM 1, IMM 2 and IMM 3 standardized craft training modules and the Pima-approved challenge exam for those modules.
- Review the value of local program advisory committee recommendations to meet the local industry needs. The Team concurred that there was value in having lab/practical, internships and/or externships as part of the program to meet local industry/business needs.
- Review OSHA 10-Hour Hazard Recognition Training for Construction. OSHA 10 includes content essential to general-related work such as fall protection, personal protective equipment, fire prevention and safety, OSHA inspection procedures and more.

The Trades and Industry CAT confirms:

- The certifications exams are valid, reliable, and peer-reviewed on a regular basis to ensure the content accurately measures intended competencies.
- The competencies measured by the NCCER Core, IMM 1, IMM 2 and IMM 3, and OSHA 10 certificate are developed by industry and reflect industry standards.

The Trades and Industry CAT also considered competencies signaled by lab and practical learning experiences. As part of
the program offered by OTCs, student will participate in lab/practical experience as recommended by the local program advisory committee to meet local business and industry needs. The lab/practical experiences will reinforce the instructional competencies through hands-on learning.

Upon successful completion of the 900+ hour program in the field of plumbing at an Ohio Technical Center and attainment of the following certifications:

- NCCER Core
- NCCER Industrial Maintenance Mechanic Level 1
- NCCER Industrial Maintenance Mechanic Level 2
- NCCER Industrial Maintenance Mechanic Level 3
- OSHA 10- General Industry

A student shall be awarded 30 technical semester hours towards completion of an Association of Technical Studies at a public degree granting college or university.

**ONLY IF NECESSARY TO AFFIRM 30 CREDITS----STEP TWO: PROGRAM-RELATED COMPETENCIES OBTAINED OUTSIDE OF PRIMARY CREDENTIAL**

<table>
<thead>
<tr>
<th>Details/Explanation</th>
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<tbody>
<tr>
<td>OSHA 10-Hour: General Industry Certification</td>
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</tbody>
</table>

OSHA 10- Hour: General Industry:

**Mandatory - 7 hours of training**

- Introduction to OSHA
- Walking and Working Surfaces, including fall protection
- Electrical
- Personal Protective Equipment
- Hazard Communication

**Elective - 2 hours of Training**

Must present at least two hours of training on the following topics.

Must be taught by a Certified OSHA Outreach Trainer. [https://www.osha.gov/dte/outreach/program_requirements.pdf](https://www.osha.gov/dte/outreach/program_requirements.pdf)

Used for all pathways. Elective and Optional components of the OSHA 10-Hour: General Industry Credential will be determined by local program advisory board.
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At least two topics must be presented. The minimum length of any topic is one-half hour.
- Hazardous Materials
- Materials Handling
- Machine Guarding
- Introduction to Industrial Hygiene
- Bloodborne Pathogens
- Ergonomics
- Safety and Health Program
- Fall Protection

**Optional - 1 hour of Training.**
Teach other general industry hazards or policies and/or expand on the mandatory or elective topics. The minimum length of any topic is one-half hour.

### Description of additional program elements beyond primary credential.

### Program related competencies/learning outcomes outside of credential(s). Include how competencies are demonstrated.

### Other Parameters of Competency.

### Related Programs as of Fall 2015:

<table>
<thead>
<tr>
<th>Ohio Technical Center</th>
<th>Program Name</th>
<th>Clock Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apollo JVSD</td>
<td>MultiCraft Industrial Technology (MIT)</td>
<td>900 Clock Hours</td>
</tr>
<tr>
<td>Butler Tech&amp; Career Development Schools JVSD</td>
<td>Industrial Maintenance Tech.</td>
<td>936 Clock Hours</td>
</tr>
<tr>
<td>Collins Career Center</td>
<td>Industrial Maintenance</td>
<td>900 Clock Hours</td>
</tr>
<tr>
<td>EHOVE Career Center</td>
<td>Industrial Technician</td>
<td>900 Clock Hours</td>
</tr>
<tr>
<td>Mid-East Career and Technology Centers JVSD</td>
<td>Multi-Craft Industrial Training</td>
<td>900 Clock Hours</td>
</tr>
<tr>
<td>Pickaway-Ross Career &amp; Technology Center</td>
<td>Maintenance</td>
<td>900 Clock Hours</td>
</tr>
</tbody>
</table>
# One-Year Option

## 900 Clock Hour Certification Affirmation

<table>
<thead>
<tr>
<th>Committee Members and Subject Matter Experts:</th>
<th>Name</th>
<th>Role</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Barbara Wagner</td>
<td>Co-Chair</td>
<td>Upper Valley Career Center</td>
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<tr>
<td></td>
<td>Kelly Zelesnik</td>
<td>Co-Chair</td>
<td>Lorain County Community College</td>
</tr>
<tr>
<td></td>
<td>Jon Buttelwerth</td>
<td>Member</td>
<td>Cincinnati State Technical and Community College</td>
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<tr>
<td></td>
<td>Larraine Kapka</td>
<td>Member</td>
<td>Sinclair Community College</td>
</tr>
<tr>
<td></td>
<td>Mike Sizemore</td>
<td>Member</td>
<td>Miami Valley Career Technical Center</td>
</tr>
<tr>
<td></td>
<td>Tim Conley</td>
<td>Member</td>
<td>Pickaway Ross Career and Technology Center</td>
</tr>
<tr>
<td></td>
<td>Jeffrey Jones</td>
<td>Member</td>
<td>Ashland County West Holmes Career Center</td>
</tr>
</tbody>
</table>

## OTHER COMMENTS.

Material covered is adequate to allow 30 hours of credit to be granted.

## AFFIRMED NUMBER OF TECHNICAL BLOCK CREDITS

30 semester hours

## LENGTH OF TIME CREDENTIAL CAN BE USED FOR ONE-YEAR OPTION:

Must have completed a 900+ hour Industrial Maintenance program at an Ohio Technical Center and hold all five of the following certifications:

- NCCER Core
- NCCER Industrial Maintenance Mechanic Level 1
- NCCER Industrial Maintenance Mechanic Level 2
- NCCER Industrial Maintenance Mechanic Level 3
- OSHA 10- General Industry

## Co-chair signatures:

Dr. Barbara G. A. Wagner, Adult Division Director
Upper Valley Career Center – Ohio Technical Center

Kelly A. Zelesnik, Dean of Engineering Technologies
Lorain County Community College

Date: 8/1/2016