REQUEST AND RECOMMENDATION

ONE YEAR OPTION
600- 899 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 technical credit. CATs affirmed that programs over 900 hours, articulated to a block of 30 technical credit hours. For programs between 600-899 credit hours, the review resulted in a proportional amount of credit hours being awarded. 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 20 semester hours of technical credit towards an Associate of Technical Studies in Building and Industrial Technology when:

- the student has successfully completed a 600-899 clock hour program in Industrial Maintenance at an Ohio Technical Center.

And currently holds ALL of the following credentials:

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

Please note these certifications must be current and valid. Student must have completed the Ohio Technical Center program within 5 years.
## RECOMMENDATION
The Vice Chancellor has verified that this institution has met the standards and requirements of the Ohio Department of Higher Education.

<table>
<thead>
<tr>
<th>Stephanie Davidson, Vice Chancellor of Academic Affairs</th>
<th>Date</th>
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<tbody>
<tr>
<td></td>
<td>5/31/17</td>
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## APPROVAL

<table>
<thead>
<tr>
<th>John Carey, Chancellor</th>
<th>Date</th>
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<tr>
<td></td>
<td>6/8/17</td>
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</table>
## One-Year Option

**Certification Affirmation Template**

The Program Affirmation Template is designed to provide a common matrix for a peer review process acceptable to the Higher Learning Commission to soundly affirm awarding 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
- [x] 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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</table>
| **Name:** The National Center for Construction Education and Research (NCCER) Certifications | • NCCER Core  
• NCCER Industrial Maintenance Mechanic Level 1  
• NCCER Industrial Maintenance Mechanic Level 2 |
| **Type:** |  
- [ ] License  
- [ ] Registry  
- [x] Certification |

Program requirements by credentialing body.

The program must be a NCCER Accredited Training Sponsor (ATS) and a NCCER Accredited Assessment Center. “Entities that have been approved by NCCER as having the resources to effectively conduct a quality training program that utilizes NCCER curriculum are designated as an ATS. Entities that have been approved by NCCER as having the resources to effectively conduct a quality assessment program that utilizes the National Craft Assessment and Certification Program (NCACP) assessments and performance verifications are designated as an NCCER Accredited Assessment Center.

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

**Certification Affirmation Template**

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](http://www.nccer.org/assessments-performance-verifications?mID=616)

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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  
All NCCER Core, IMM 1 and IMM 2 competencies must be covered. Remaining hours may vary per program based on local advisory business/industry committees. |
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Renewal:</td>
<td>NCCER does not have a renewal option.</td>
</tr>
<tr>
<td>Exam Integrity:</td>
<td>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.</td>
</tr>
<tr>
<td>355 clock hours of instruction to complete NCCER Curriculum requirements.</td>
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| 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  |
|---------------------------------------------------|----------------------------------------------------------------------------------|
| NCCER Industrial Maintenance Mechanic Level 1 Competencies | Each equipment specific module typically contains operation, controls, maintenance, and safety guidelines.  
One-Year Option
Certification Affirmation Template

- 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

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 600-899 clock hours earned at an Ohio Technical Center (OTC).
One-Year Option
Certification Affirmation Template

- Research the competencies tested by the industry credential(s). The Trades and Industry credit affirmation team (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, and IMM 2. Pima Community College awards 19.5 college credits towards an Associated of Applied Science degree in Business and Industry Technology to students of NCCER's accredited sponsors who successfully complete NCCER Core, IMM 1, and IMM 2 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, and IMM 2, 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 600-899 hour program in the field of Industrial Maintenance Mechanic 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
- OSHA 10- General Industry

A student shall be awarded 20 technical semester hours towards completion of an Association of Technical Studies at a public degree granting college or university.
## One-Year Option
Certification Affirmation Template

### ONLY IF NECESSARY TO AFFIRM 20 CREDITS----STEP TWO: PROGRAM-RELATED COMPETENCIES OBTAINED OUTSIDE OF PRIMARY CREDENTIAL

<table>
<thead>
<tr>
<th>Details/Explanation</th>
<th>Comments</th>
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<tbody>
<tr>
<td>Additional related complementary credential(s) or badge(s) (e.g. OSHA 10, CPR).</td>
<td>OSHA 10-Hour: General Industry Certification</td>
</tr>
<tr>
<td>Competencies demonstrated by additional credential attainment.</td>
<td></td>
</tr>
</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. 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.

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.
# One-Year Option
## Certification Affirmation Template

<table>
<thead>
<tr>
<th>Description of additional program elements beyond primary credential.</th>
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<table>
<thead>
<tr>
<th>Program related competencies/learning outcomes outside of credential(s). Include how competencies are demonstrated.</th>
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<tr>
<th>Other Parameters of Competency.</th>
<th></th>
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## Related Programs as of Fall 2016:

<table>
<thead>
<tr>
<th>Program Name</th>
<th>Clock Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light Commercial/Residential Maintenance</td>
<td>600</td>
</tr>
<tr>
<td>Maintenance Training</td>
<td>750</td>
</tr>
<tr>
<td>Industrial Maintenance</td>
<td>600</td>
</tr>
<tr>
<td>Industrial Maintenance</td>
<td>660</td>
</tr>
<tr>
<td>Industrial Maintenance</td>
<td>600</td>
</tr>
<tr>
<td>Industrial Maintenance with Hydraulics/Pneumatics</td>
<td>700</td>
</tr>
<tr>
<td>Industrial Electrical Maintenance</td>
<td>600</td>
</tr>
<tr>
<td>Industrial Mechanics</td>
<td>600</td>
</tr>
<tr>
<td>Maintenance Mechanic Millwright</td>
<td>720</td>
</tr>
<tr>
<td>Industrial Maintenance Technology</td>
<td>746</td>
</tr>
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</table>

## Committee Members and Subject Matter Experts:

<table>
<thead>
<tr>
<th>Name</th>
<th>Role</th>
<th>Institution</th>
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</thead>
<tbody>
<tr>
<td>Barbara Wagner</td>
<td>Co-Chair</td>
<td>Upper Valley Career Center</td>
</tr>
<tr>
<td>Kelly Zelesnik</td>
<td>Co-Chair</td>
<td>Lorain County Community College</td>
</tr>
<tr>
<td>Jon Buttelwerth</td>
<td>Member</td>
<td>Cincinnati State Technical and Community College</td>
</tr>
<tr>
<td>Carrie Fife</td>
<td>Member</td>
<td>Pickaway Ross Career &amp; Technology Center</td>
</tr>
<tr>
<td>Carl Hilgarth</td>
<td>Member</td>
<td>Shawnee State University</td>
</tr>
<tr>
<td>Jeffrey Jones</td>
<td>Member</td>
<td>Ashland County West Holmes Career Center</td>
</tr>
<tr>
<td>Larraine Kapka</td>
<td>Member</td>
<td>Sinclair Community College</td>
</tr>
<tr>
<td>Mike Sizemore</td>
<td>Member</td>
<td>Miami Valley Career Technical Center</td>
</tr>
<tr>
<td>Greg Timberlake</td>
<td>Member</td>
<td>North Central State College</td>
</tr>
</tbody>
</table>
**OTHER COMMENTS.** Material covered is adequate to allow 20 hours of credit to be granted.

| AFFIRMED NUMBER OF TECHNICAL BLOCK CREDITS | LENGTH OF TIME CREDENTIAL CAN BE USED FOR ONE-YEAR OPTION: Must have completed a 600-899 hour Industrial Maintenance program at an Ohio Technical Center and hold all of the following certifications:
|                                           | • NCCER Core
|                                           | • NCCER Industrial Maintenance Mechanic Level 1
|                                           | • NCCER Industrial Maintenance Mechanic Level 2
|                                           | • OSHA 10- General Industry
| 20 semester hours                        | All certifications must be current and valid. Must have completed the Ohio Technical Center program within 5 years.

**Co-chair signatures:**

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

Date: 5/5/17

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