# **ADVANCE CTE EXCELLENCE IN ACTION AWARD**

**PROGRAM SUMMARY**

Advance CTE is pleased to announce a call for applications for the fifth annual Excellence in Action awards, through which we recognize and honor superior Career Technical Education (CTE) programs of study from across the nation.

**CRITERIA FOR JUDGING**

Selected programs will exemplify excellence in:

* Implementing Career Cluster®-based [programs of study](https://careertech.org/programs-study);
* Maintaining effective employer and business partnerships;
* Demonstrating alignment to rigorous and relevant college- and career-ready expectations;
* Demonstrating a clear progression of knowledge and skills and student transitions across secondary and postsecondary systems;
* Integrating successful career guidance and advisement;
* Integrating high-quality work-based learning experiences;
* Highlighting alignment to workforce and employer needs in the community; and
* Providing concrete data on the program of study’s impact on student achievement and success at both the secondary and postsecondary levels.

**ELIGIBILITY**

* This award is open to any secondary or postsecondary schools or colleges in the United States. Your school or institution may submit one application per [Career Cluster](http://careertech.org/career-clusters);
* The program of study must have at least one full graduating class;
* Your program must be eligible to receive funding from the Carl D. Perkins Career and Technical Education Act;
* Applications that do not include data to demonstrate positive impact on student achievement will not be eligible for consideration.
* If your program has received in an award in the past, you may not apply for that same Career Cluster. However, your school or institution may apply in a different Career Cluster.

**AWARD SUBMISSION REQUIREMENTS**

Complete applications will contain the following:

* A completed application including supplemental materials by the application deadline of **November 15, 2017 at 5 p.m. ET.**
* At least one letter of support from an employer or business partner supporting the program of study; and
* At least one additional letter of support from a partner (education, community or business) of your choosing.
* *Optional:* Supplemental materials including photos, videos, news articles, etc., are welcome but not required.

The application must be submitted using [this form](https://careertech.org/2018-excellence-action-application). The application must be submitted in a Microsoft Word format. Supplemental materials, including the letters of recommendation, must be combined and submitted as **one** PDF document.

*Please note:*

* Submissions should **not** include any personally identifiable student.
* The application does not have a page limit, however, many questions do have a word limit. Please do not submit responses that go beyond this limit. Also, submissions that do not contain all the required materials (a completed application, two letters of support and supplemental materials in the correct formats) will not be advanced for consideration.

**WINNERS WILL RECEIVE**

* A banner to hang in their school or institution;
* A digital banner to use in email and print materials as they so choose; and
* Travel and one hotel room for one night in Washington, DC for a representative to be recognized at an awards ceremony to be held the week of April 4-6, 2018.

**WINNERS WILL ALSO BE FEATURED IN**

* A national press release, which will be distributed to national media.
* A winner-specific press release to distribute to local media;
* A standalone one-pager;
* A standalone blog on the [Learning that Works blog](http://blog.careertech.org/);
* Representation on the Advance CTE [website](http://www.careertech.org).
* Many past winners have been featured in national conferences, in briefs and reports, on webinars and in the media.

**HOW TO APPLY**

* Fill out the following application.
* Once you have finished, complete [this form](https://careertech.org/2018-excellence-action-application) and upload the following:
* Your full application saved as a Word document (.docx)
* All of your supplemental documents or evidence consolidated as one PDF document.

# **BACKGROUND INFORMATION**

1. Program of study name:

MT – Machine Technology

(Machine Tool Technology/Machinist CIP Code 48.0501)

1. Point of Contact
 Name: Kurt Speicher

Email Address: speicherk@butlertec.us

Phone Number: 724-282-0735 ext. 202
Address: 210 Campus Lane, Butler, PA 16001

1. Applicant’s School/College:

Butler County Area Vocational-Technical School

1. State: Pennsylvania
2. Type of institution (click the box to check)

 [x]  Area technical center

[ ]  Career academy

 [ ]  Comprehensive high school

 [ ]  Community college

 [ ]  Technical college

Other (please specify)

|  |
| --- |
|  |

1. Career Cluster in which your program of study should be considered (Follow this link for a further explanation of each Career Cluster [careertech.org/career-clusters](http://careertech.org/career-clusters)) **(Select only ONE):**

 [ ]  Agriculture, Food & Natural Resources Career Cluster

 [ ]  Architecture & Construction Career Cluster

 [ ]  Arts, A/V Technology & Communications Career Cluster

 [ ]  Business Management & Administration Career Cluster

 [ ]  Education & Training Career Cluster

 [ ]  Finance Career Cluster

 [ ]  Government & Public Administration Career Cluster

 [ ]  Health Sciences Career Cluster

 [ ]  Hospitality & Tourism Career Cluster

 [ ]  Human Services Career Cluster

 [ ]  Information Technology Career Cluster

 [ ]  Law, Public Safety, Corrections & Security Career Cluster

 [x]  Manufacturing Career Cluster

 [ ]  Marketing Career Cluster

 [ ]  Science, Technology, Engineering & Mathematics Career Cluster

 [ ]  Transportation, Distribution & Logistics Career Cluster

1. In three sentences or less, describe your program of study, including the secondary and postsecondary components and how long the program of study has been in place.

MT has been an approved program of study since 2010. The three-year secondary program addresses all aspects of precision machining including lathes and mills, grinding, and Computer Numerical Control programming. It employs multiple articulation agreements as well as an excellent relationship with local industry.

1. Please check the geographical and demographic setting for your program of study and describe the geographic and economic conditions of the region served by the school.

 [ ]  Urban

 [x]  Suburban

 [ ]  Rural

 [ ]  Other

The Butler County Area Vocational-Technical School began operation in the fall of 1979.  Currently we serve over 900 students from the following Butler County schools: Butler Area, Karns City Area, Mars Area, Moniteau, Seneca Valley, Slippery Rock Area, and South Butler County.  The Butler County AVTS is a part-time CTC that provides 15 programs of interest.  Located 30 miles north of Pittsburgh, PA, the school engages excellent job placement with our business and industry partners.  Butler County has various economic and social climates including heavy industry, agriculture, tourism, technology, and service oriented opportunities.

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# **STUDENT POPULATION & DATA**

1. Please describe your program of study’s demographic and outcome data for the most recent academic year(s). It is our strong preference to have data from both secondary and postsecondary levels. If this is not available, please provide an explanation as to why the data from the other learner level is not available. Applications that do not include data to support positive impact on student achievement will not be eligible for consideration. (100 word limit)

All PA Program of Study completers earn postsecondary credit through the PA SOAR (Students Occupationally and Academically Ready) Statewide articulation program as well as local articulated credit through performance on her/his End of Program Assessment, National Institute of Metalworking Skills (NIMS). Therefore, each of our graduates who completed our POS earned postsecondary credit. Our program of study serves only secondary students therefore we have no direct postsecondary data to include. We have included postsecondary data for our secondary graduates collected from our graduate survey. Note some data for our 2017 graduates is not available yet.

**NOTE**: Please specify if and when you are using a percentage with a different denominator (e.g., seniors) than the one listed.

**When completing the data section, please only use percentages and include data that is from your program of study, not the entire school/institution. Additionally, only include data where students are eligible to participate (e.g., only seniors in high school will be eligible for the section asking for percent of seniors who graduated high school, so only seniors should be included in that data; if your work-based learning only occurs within a specific grade level, only include them in your data for that category.)**

|  |  |  |  |
| --- | --- | --- | --- |
| SCHOOL YEAR | 2014-15 | 2015-16 | 2016-17 |
| **SECONDARY-LEVEL DATA** |
| **Total number of students served by your program of study**  |  |  |  |
| % male students  | 100% | 98% | 98% |
| % female students  | 0% | 2% | 2% |
| % minority students | 2% | 2% | 2% |
| % low-income students  | 22% | 9% | 25% |
| % students with disabilities  | 21% | 12% | 17% |
| % English language learners | 0% | 0% | 0% |
| Other relevant *demographic* data  |  |  |  |
| % of students who earned postsecondary credit (dual enrollment, AP, etc.)  | 100% | 100% | 100% |
| % of students who earned an industry-recognized credential  | 100% | 100% | 100% |
| % of students who participated in work-based learning | 43% | 38% | 29% |
| % of seniors who graduated high school (who were eligible/seniors)  | 100% | 100% | n/a% |
| % of graduates who enrolled in postsecondary education (who were eligible/seniors)  | 17% | 14% | n/a% |
| % of graduates who entered the workplace and/or military (who were eligible/seniors)  | 66% | 79% | n/a% |
| **POSTSECONDARY-LEVEL DATA** |
| **Total number of students served by your program of study**  |  |  |  |
| % male students  | % | % | % |
| % female students  | % | % | % |
| % minority students | % | % | % |
| % low-income students  | % | % | % |
| % students with disabilities  | % | % | % |
| % English language learners | % | % | % |
| Other relevant *demographic* data  |  |  |  |
| % of students who completed postsecondary/earned a degree or certificate (who were eligible)  | % | % | % |
| % of students who earned an industry-recognized credential (who were eligible)  | % | % | % |
| % of graduates who entered the workplace and/or military (who were eligible)  | % | % | % |
| % of graduates who transitioned to further postsecondary education (who were eligible) |  |  |  |

1. Provide links to the source of the above data. If the links are not publicly accessible, please explain the source of the data.

Please see attached Pennsylvania Information Management System (PIMS) data. Also, please see attached BCAVTS graduate survey.

1. How does your school or institution ensure equitable access and outcomes for students with diverse backgrounds? (150 word limit)

BCAVTS utilizes an open enrollment policy. Students applying for admission are ensured consideration for placement in a suitable program. BCAVTS works in conjunction with its sending districts to ensure that students with individual needs receive all necessary support, utilizing both sending district staff placed at the CTC as well as BCAVTS staff, to promote success in a variety of situations.

1. If applicable, what strategies or technologies do you use to close access gaps? (e.g. integrated digital learning, virtual work based learning.)

BCAVTS utilizes the online learning system CANVAS to allow instructors to blend curriculum delivery utilizing both face-to-face/experiential learning as well as online delivery that can feature pictures, videos, and other internet-related content.

1. What activities does your school or institution do to recruit elementary, middle, high school students and/or adult learners into the program of study? Please provide examples. (150 word limit)

BCAVTS, as well as its seven sending districts, recently completed updated K-12 comprehensive career guidance plans. As part of our plan, BCAVTS incorporates the following for recruiting activities:

 K-3rd Grade CTE Coloring Book

 4th - 5th Grade CTE Exploratory Camps

 6th Grade CTE Career Fairs

 7th – 8th Grade CTE Informational Table/Lunch Visits

 7th – 9th BCAVTS Expo

 9th Grade BCAVTS Tours

1. Is your program of study associated with a Career Technical Student Organization (CTSO)? If so, which one(s) and in what way(s)? (Check the [approved list](http://www.ctsos.org/ctsos/) of CTSOs) (50 word limit)

SkillsUSA. Program representatives participate in school-wide SkillsUSA meetings. Students also participate in SkillsUSA sponsored social activities. MT are active participants in SkillsUSA Program Skill Competitions.

1. Describe how career guidance/advisement is integrated into your program of study to support students’ completion of the program of study and entry into additional education/training and/or a successful career. Where applicable, describe the tools (individual career and academic plans, career exploration websites, etc.) that are provided to learners and how they are used. (200 word limit)

Career guidance begins when a student applies for admission at BCAVTS and continues throughout the student’s enrollment.  All students participate in career counseling activities offered in each classroom at various times throughout the year.  Each student is required to complete an online portfolio and resume in preparation for the transition to post-secondary education or to the workforce.

The software *Career Cruising* was purchased by BCAVTS. This career exploration software has the capability for students to take an interest inventory.  By taking these interest inventories and researching job possibilities, students are able to refine their career interest to make the transition to career and technical education seamlessly. BCAVTS also uses another career exploration software: *STEM Premier.* *STEM Premier* assists all levels of talent in identifying career pathways, educators in recruiting top talent to their schools, and employers in developing a stable, continuous talent pipeline.

Finally, students participate in an annual Tech Fair which is an informational/networking event for students to understand a variety of post-secondary options available to them. A variety of presentations provided by representatives from higher education, unions and industry are offered throughout the year also.

# **COLLEGE- AND CAREER-READY STANDARDS/EXPECTATIONS**

1. Please describe how your program of study was developed and how it ensures students are academically and technically prepared for postsecondary education and careers. Please also address the following:
	1. How were employers involved in the development and/or maintenance of your program of study?
	2. How does this program of study meet the economic needs of your community?
	3. How does this program prepare students for postsecondary education? (if applicable)
	4. How were both secondary and postsecondary educators involved in the development and/or maintenance of the program of study? (500 word limit)

Programs of Study frameworks in Pennsylvania are developed by the state. Subject matter experts are empaneled to develop and routinely update a unified task list. Core academic curriculum is then linked to the task list. Each approved program of study must employ an Occupational Advisory Committee (OAC). Each OAC is made up of local stakeholders including but not limited to; employers, tradespeople, postsecondary, workforce investment, and other concerned parties. The OAC meets twice a year providing steering and guidance on all aspects of the program including curriculum, equipment, certifications, articulations, and safety. Over the last eight years, 100% of the MT graduates have left our CTC NIMS Level I certified. MT not only offers NIMS certifications to our students but also is NIMS accredited. During the last recertification, it was cited as a program of distinction. MT teaches students concepts of precision and detail on how parts function in sync with other parts, how designing (CAD), manufacturing, and assembly all must work together to achieve a desirable result. Former students that pursued Mechanical Engineering degrees report an advantageous ranking in their engineering studies. MT also completes several STEM projects and offers articulations with local postsecondary institutions.

1. Which technical, academic and/or employability skill standards does your program of study incorporate at the secondary and/or postsecondary level and how? (Please list the standards you use and be specific regarding how your program uses industry, national, state and/or locally-developed standards) (250 word limit)

National Institute of Metal-working Skills (NIMS) is a nationally recognized certification program that is also utilized by local industries. MT has been a NIMS accredited site for seven years. On June 9, 2017 MT was reaccredited for another 5 years. The MT instructor challenges the students to acquire as many credentials as possible. Several students have achieved all 11 certifications, distinguishing them as a level one NIMS Machinist and obtained a “Certificate of Special Merit” (see attached picture). The NIMS certifications offered are listed below in question 25.

|  |  |
| --- | --- |
| **Standard Types**  | **Please list the standards your program of study uses and how it uses them below:**  |
| Academic Standards | Please see the attached MT standards crosswalk. |
| Career Cluster or Technical Standards | Please see the attached MT standards crosswalk. |
| Employability Standards  | Please see the attached MT standards crosswalk. |
| Other | National Institute of Metalworking Skills – NIMS Metal Working Program |

# **SEQUENCE OF COURSES & CREDIT TRANSFER**

1. Please fill out the chart below, and describe your program of study’s course sequence by grade level, including the relevant or required academic and technical courses, as well as other required activities.

Make sure to highlight the course sequence that bridges secondary and postsecondary education, and explain how your program of study ensures students gain the broader Career Cluster-level knowledge/skills and, over time, gain the more specific occupation-level knowledge/skills as they progress through the program of study. You can also include graphics or [plans of study](http://careertech.org/sites/default/files/PlanStudy-CareerCluster-AG_0.pdf) of the course sequence in lieu of filling out the chart below.

**Please see attached “Scope and Sequence”**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Grade/Year | English/Language Arts | Math | Science | Social Studies/ Sciences | Other Required Courses/Other Electives/Learner Activities  | CTE Courses and/or Degree Major Courses |
| **9** |  |  |  |  |  |  |
| **10** |  |  |  |  |  |  |
| **11** |  |  |  |  |  |  |
| **12** |  |  |  |  |  |  |
| **13** |  |  |  |  |  |  |
| **14** |  |  |  |  |  |  |
| **15** |  |  |  |  |  |  |
| **16** |  |  |  |  |  |  |

1. How do you ensure that CTE instruction and coursework is integrated with core academics?

All Pennsylvania CTE programs of study follow an approved, state-wide task list. Curriculum supporting this task list is developed/procured by the instructor and approved by the state-mandated Occupational Advisory Committee (OAC). Program curriculum is also reviewed by postsecondary during articulation audits. Attached are the POS Task List as well as the integrated core academic crosswalk for MT.

1. List the opportunities for students to earn articulate and/or transcript dual enrollment credit across K-12 and postsecondary, such as AP/IB, dual and concurrent enrollment, capstone experiences and/or transcripted credit articulation agreements. (250 word limit)

a. PA statewide POS articulation credit (credit amount varies by institution)

b. New Castle School of Trades (10 credits)

c. Butler County Community College (15 credits)

d. Art Institute of Pittsburgh (3 credits)

e. Capstone Cooperative Education

1. Please provide information on **at least three partnerships** with *education institutions and groups* your program of study has, and describe how these partnerships have been built, maintained and sustained over time. Use this space to specifically address the secondary and postsecondary partners that contribute to and maintain this program of study.

|  |  |  |
| --- | --- | --- |
| **Education Partnership Name** | **What role does this partner have in directly supporting your program of study?** | **How many years has this partnership been active, and how was this partnership developed?** |
| Butler County Community College (BC3) | BC3 partners with BCAVTS to provide CNC 3 class | Over Five years ago BC3’s Manufacturing Certification Team met with our program’s instructor to build a partnership class utilizing our instructor and our equipment. |
| Learning Institute for the Growth of Higher Technology (LIGHT) | They receive and inspect all of our NIMS projects. They also offer additional manufacturing classes to 11th and 12th grade students that volunteer for it. | We have been working together for more than 10 years. Partnership was developed when NIMS became a valid measuring standard for local shops. |
| Oberg Industries | Students and parents participate in a conference and presentation on manufacturing. The presentation involves a dinner, a detailed description of how co-op and apprenticeships function along with the benefits it provides to the students that desire to participate, and is followed by a tour of Oberg industries. | This partnership was developed two years ago to recruit students and educate parents on local career opportunities. |
|  |  |  |

# **ALIGNMENT WITH INDUSTRY AND BUSINESS NEEDS**

1. Please describe how your program of study is aligned with the needs of the workforce and industry in your community. Make sure to include information on how the program of study helps meet workforce demand identified by business and industry. If applicable, what labor market data does your program of study use to align to workforce needs? (250 word limit)

MT uses an industry-certification driven curriculum. NIMS is the nationally recognized industry certification for precision machining and is recognized, accepted, and preferred by all of the machining employers in our area. By ensuring that all MT students have the opportunity to achieve NIMS Level I status at a minimum before graduating, the program ensures that all MT graduates possess the skills and documented qualifications that all local industry desire. The MT program enjoys 100% gainfully placed status.

1. Are ALL students in the program of study required to participate in a work-based learning opportunity? YES or NO.

NO

1. Please describe the work-based learning opportunities available to students who participate in this program of study. (250 word limit)

Once a student has completed three successful semesters, she/he is eligible to participate in our Cooperative Education Program. Participating students report to an employer instead of the CTC. There they take part in program-related field experience, earning a salary and experience while receiving secondary credit. Co-op participation for the MT program is very high. Usually 100% of interested students are able to be placed with nearly that many remaining for full-time employment after graduation.

1. Please list the industry-recognized credentials/certifications/licenses offered/required. If your program of study does not include industry-based credentials/certifications, please explain why. (200 word limit)

|  |  |
| --- | --- |
| **Offered** | **Required**  |
| (NIMS) Measurement, Materials & Safety |  |
| (NIMS) Job Planning, Bench Work & Layout |  |
| (NIMS) Manual Milling Skills I |  |
| (NIMS) Turning Operations: Between Centers |  |
| (NIMS) Turning Operations: Chucking Skills |  |
| (NIMS) Grinding Skills I |  |
| (NIMS) Drill Press Skills I |  |
| (NIMS) CNC Turning: Programming Set up/Operations |  |
| (NIMS) CNC Milling: Programming Set up/Operations |  |
| (NIMS) CNC Turning: Operator  |  |
| (NIMS) CNC Milling: Operator |  |

1. Please describe how you ensure the instructors teaching this program of study keep up-to-date on advancements in the workplace, such as participating in externships and/or requirements to have current industry credentials. (100 word limit)

The instructor must maintain current NIMS certifications for all credentials offered. To this end, the instructor is continuously updating the skills necessary to maintain these credentials. Also, the instructor attended 3, 3 day training sessions to maintain current CNC programming certification through HAAS.

1. Please provide information on **at least three** *business, industry and/or labor* partnerships your program of study has, and describe how these partnerships have been built, maintained and sustained over time.

|  |  |  |
| --- | --- | --- |
| **Business/Industry Name** | **What role does this partner have in directly supporting your program of study?** | **How many years has this partnership been active, and how was this partnership developed?** |
| **Penn United Technologies, Inc.** | * Provide SPC training for MT students
* Provide inspections for NIMS parts
* Calibrate our measuring tools annually
* Donate awards for outstanding students upon graduation
 | We have been educational partners for 21 years. I was a former employee for 9 years. I taught the 4th year apprentices for Penn United and several local industries prior to becoming a secondary educator. |
| **Oberg Industries and Oberg Medical** | * Donates tooling/materials
* Offers free pre-employment testing
* Teaches our students interviewing skills
* Provides evening dinner and open house for MT students and their parents
* Donate awards for outstanding students upon graduation.
 | We have been partners for more than 10 years. Relationship developed through OAC members involving Human Resource people and including the CEO of company. |
| **II VI, Inc.** | * Hire our students annually.
* Actively participate in OAC.
* Donate awards for outstanding students upon graduation.
 | We have been partners for over 15 years. Relationship developed from OAC members bringing other managers to visit our shop. They do presentations for students and explain their specialty in manufacturing. |
|  |  |  |
|  |  |  |

1. Please feel free to use the space below to share any other information or evidence of success of your program of study and the students who participate. (Optional)

Approximately 10 years ago, we became a NIMS accredited site. We understand that today’s economy demands that a large amount of emphasis be placed on valid certifications along with preparing students for post-secondary education. Using NIMS assists our dedication to accommodating the needs of local manufacturing and promoting additional education. NIMS and our state of the art shop have brought a higher-level student to our program. That combination has also challenged these students to reach higher goals and acquire the skills necessary for a successful future. Many of our students realize this success with a career in manufacturing right here in Butler County, PA.

1. If applicable, please provide more detail on any partnerships your program of study has that have not been mentioned already. This includes community groups, non-profits, volunteer organizations, etc. Describe how these partnerships have been built, maintained and sustained over time. (Optional)

|  |  |  |
| --- | --- | --- |
| **Additional Partnerships** | **What role does this partner have in directly supporting your program of study?** | **How many years has this partnership been active, and how was this partnership developed?** |
|  |  |  |
|  |  |  |
|  |  |  |

# **SUBMIT YOUR APPLICATION**

**SUBMIT YOUR APPLICATION**

* Fill out this application.
* Once you have finished, complete [this form](https://careertech.org/2018-excellence-action-application) and upload the following:
* Your full application saved as a Word document (.docx)
* All of your supplemental documents or evidence consolidated as one PDF document.

**THANK YOU!**

Thank you for completing this application! The selection committee will convene in December 2017 to review the applications and make final decisions. You will know the status of your application by January 25, 2018. The programs of study will be evaluated based on their effective leveraging of partnerships, alignment to rigorous and relevant college- and career-ready expectations, clear progression of knowledge and skills across secondary and postsecondary systems, integration of successful career guidance/advisement, and key indicators of student success.

Don’t forget to use the Excellence in Action award submission checklist to make sure you’ve completed your application in its entirety.

We look forward to learning more about your program!

For questions, concerns please contact awards@careertech.org.