# **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:** Engineering and Design career pathway/area of study—part of the Career and Technical Education Program at Milton Hershey School.
2. **Point of Contact**
 *Name*: Emily Barge

*Email Address*: bargee@mhs-pa.org

*Phone Number*: 717-520-2205
*Address:*

MHS/Founders Hall

P.O. Box 830
Hershey, PA 17033

1. **Applicant’s School/College:**Milton Hershey School
2. **State**: Pennsylvania
3. Type of institution (click the box to check)

 [x]  Area technical center

[ ]  Career academy

 [x]  Comprehensive high school (includes PreK through 12th grade)

 [ ]  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

 [ ]  Manufacturing Career Cluster

 [ ]  Marketing Career Cluster

 [x]  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.**

The Engineering and Design career pathway at Milton Hershey School is one of eleven concentrations students can select in our renowned [Career and Technical Education (CTE) program](https://www.mhskids.org/academics/mhs-career-technical-education/) and has been available to high school students since 2008. Over the last nine years, the program has adapted and grown to best prepare students for the evolving industry of engineering and architecture. The pathway offers hands-on instruction in board and CAD design, leading to ANSI/ASME standards-based knowledge for national certifications in mechanical and architectural drafting competencies—this includes Autodesk user certifications in AutoCAD, Revit, and Inventor, participation in SkillsUSA competitions, professional mentorship opportunities, career-based [summer internships](https://www.mhskids.org/academics/college-career-readiness/student-internships/), and post-secondary college course credits prior to graduation.

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

 [ ]  Suburban

 [x]  Rural

 [x]  Other *(see below)*

Milton Hershey School is a cost-free, private, coeducational residential school in Hershey, PA. The school is located on thousands of acres of farm land, while remaining in close proximity to cities such as Harrisburg, Lancaster, York, Philadelphia, Pittsburgh and Baltimore.

Milton and Catherine Hershey established the school in 1909 to provide a positive, structured home life year-round to children from lower income families who live in both rural and urban regions across Pennsylvania and the United States. The average family income for students enrolled in 2016-17 was $21,361 — 13 percent below the 2017 Federal Poverty Guideline of $24,600 for a family of four.

# **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)

*\*Milton Hershey School recently established our Graduate Programs for Success (GPS) Division during the 2016-17 school year. This department provides comprehensive support to MHS graduates and compiles postsecondary data. Because this department is new and working to collect data for past and upcoming school years, our most up-to-date numbers are from the 2016-17 school year.*

**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**  | 76 | 77 | 65 |
| % male students  | 76% | 79% | 80% |
| % female students  | 24% | 21% | 20% |
| % minority students | N/A | N/A | N/A |
| % low-income students  | 100% | 100% | 100% |
| % students with disabilities  | 1% | 1% | 1% |
| % English language learners | N/A | N/A | N/A |
| Other relevant *demographic* data  |  |  |  |
| % of students who earned postsecondary credit (dual enrollment, AP, etc.)  | N/A | N/A | 18% took AP classes |
| % of students who earned an industry-recognized credential  | 100% | 100% | 100% |
| % of students who participated in work-based learning | N/A | N/A | 9% completed summer internships (9 students) |
| % of seniors who graduated high school (who were eligible/seniors)  | N/A | N/A | 100% |
| % of graduates who enrolled in postsecondary education (who were eligible/seniors)  | N/A | N/A | A total of 11 seniors in the Engineering and Design pathway graduated in the Class of 2017. **91%** (10 of the seniors) enrolled in postsecondary education. |
| % of graduates who entered the workplace and/or military (who were eligible/seniors)  | % | % | Out of the 11 seniors, 9% (1 student) entered the military. |
| **POSTSECONDARY-LEVEL DATA** |
| **Total number of students served by your program of study**  |  |  | 10 |
| % male students  | N/A | N/A | 80% |
| % female students  | N/A | N/A | 20% |
| % minority students | N/A | N/A | N/A |
| % low-income students  | 100% | 100% | 100% |
| % students with disabilities  | N/A | N/A | N/A |
| % English language learners | N/A | N/A | N/A |
| Other relevant *demographic* data  |  |  |  |
| % of students who completed postsecondary/earned a degree or certificate (who were eligible)  | N/A | N/A | These students are still in college. |
| % of students who earned an industry-recognized credential (who were eligible)  | N/A | N/A | These students are still in college. |
| % of graduates who entered the workplace and/or military (who were eligible)  | N/A | N/A | These students are still in college. |
| % of graduates who transitioned to further postsecondary education (who were eligible) |  |  | These students are still in college. |

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

This data is collected through our Graduate Programs for Success (GPS) Division (see above).

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

Because 100 percent of our students come from low income families, our students have diverse backgrounds and individual needs. All students have access to comprehensive academic and behavioral support, mental health services, and a nationally recognized social and emotional learning curriculum to promote strong character and leadership. We have a 19:1 ratio of students to health professionals, and students receive all of these services at no cost.

For the Engineering and Design pathway, certification tests are built into the curriculum as graduation requirements to ensure all students are well-prepared for the industry and have equitable outcomes. Students have opportunities to receive certifications in [Revit® (architectural software)](https://www.mhskids.org/news-feed/senior-3d-design-improve-mhs-campus/), Autodesk Inventor (mechanical design software), AutoCAD (general drafting software), NOCTI Mechanical Drafting and NOCTI Architectural Drafting.

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

Throughout the Engineering and Design classes, all lessons follow national and state lesson plan formats for instruction. We enhance this instruction and close access gaps with interactive digital Smartboards, hands-on Autodesk CAD software instruction, digital overhead cameras, virtual job shadow opportunities, and innovative mechanical and architectural product presentations. All lessons include and consider appropriate student accommodations for learning. To make the learning process more meaningful and deeply connected to industry standards, we also plan multiple college and business site visits to provide experiential learning opportunities for Engineering and Design students.

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)

At the elementary level, we host [career fairs](https://www.mhskids.org/news/mhs-fourth-graders-expand-career-horizons/) to help younger students explore the 11 pathways offered at the school and interact with high schoolers who are currently enrolled in these concentrations. In middle school, our students complete rotations where they receive skills-based learning. For the Engineering and Design lessons, they learn how to create designs using CAD software, learn about structural engineering materials, design a bridge and test different pours of concrete.

When MHS students enter high school, all freshmen are required to select one of our 11 CTE career pathways, with Engineering and Design being one of their options. Prior to making this selection, they must choose four of the 11 pathways and complete 5-week exploratory rotations in each of them before selecting their pathway.

Teachers and career counselors work closely with students to find programming that matches their individual interests and abilities to set them up for success.

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)**
Our high school students from the Engineering and Design pathway participate in [SkillsUSA competitions](https://www.mhskids.org/news/milton-hershey-school-district-skillsusa-contest/). For the last four years, MHS students received medals for architectural drafting, technical drafting and technical math categories. Last year, an engineering student advanced to the state SkillsUSA competition.

MHS middle school students participate in [Technology Student Association (TSA)](https://www.mhskids.org/news/middle-school-students-regional-tsa-conference/).

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)

Milton Hershey School employs approximately nine career counselors who work with students in grades 8-12 to ensure they enroll in the most beneficial courses for the Engineering and Design field. Career counselors support eighth-graders throughout their transition to high school by helping them schedule classes that align with their career goals, planning job shadow programs, and providing study tips and test-taking strategies. In high school, career counselors help students write resumes, apply to colleges or interview for jobs, and learn about in-demand career fields.

If seniors plan to attend a college, university, or technical school, they are paired with higher education support specialists. These support specialists are responsible for building critical relationships with students prior to graduation and maintaining that relationship in college through frequent outreach and support. This includes regular communication and visits to the graduates’ higher education institutions. Our support specialists also provide graduates with resources for navigating their institution, financing their education, and achieving their goals. For many MHS alumni, this support is critical to their success as first-generation college students.

Career counselors and higher education support specialists make up Milton Hershey School’s [Graduate Programs for Success (GPS) Division](https://www.mhskids.org/graduate-programs-success/)—a department dedicated to providing individualized support to students and graduates.

# **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.**

When the Engineering and Design career pathway was developed in 2008, it began as a drafting class. Thanks to industry professionals and college professors who serve on our occupational advisory committee, the program has progressed to a more comprehensive, technical career pathway focused on engineering and architecture design-based curriculum.

After completing two years of Engineering and Design curriculum—which includes a mix of engineering and architecture lessons—MHS juniors are required to narrow their focus by selecting either engineering or architecture to study for the conclusion of their high school careers. With specialized classes, workplace learning experiences, and certification opportunities, they graduate with specific knowledge of the engineering or architecture industry as well as important complementary information such as carpentry, construction, drafting and more.

**Please also address the following:**

* 1. **How were employers involved in the development and/or maintenance of your program of study?**

Multiple cross-discipline professional employers contribute to curriculum and classroom lesson development as members of our occupational advisory committee. These individuals share industry trends and suggest enhancements to our curriculum. They also provide workplace learning opportunities by hosting summer interns, visiting campus to speak in classes, and participating in our co-op program for high school seniors.

* 1. **How does this program of study meet the economic needs of your community?**

There is a growing demand, especially in the Central Pennsylvania area, for skilled engineering and architecture design employees at all levels of educational experience. Because Milton Hershey School students earn multiple certifications for industry-recognized software like AutoCAD and Inventor, they have the ability to earn employment directly out of high school or pursue postsecondary education in the engineering field.

* 1. **How does this program prepare students for postsecondary education? (if applicable)**

Milton Hershey School students are adequately prepared for postsecondary education by earning industry-recognized certifications, college credits, and AP class instruction. Through our partnership with Temple University, MHS students also can gain a head start in their college career by taking classes on the MHS campus taught by college professors. They also gain significant knowledge through hands-on internships and skills-based national competitions.

* 1. **How were both secondary and postsecondary educators involved in the development and/or maintenance of the program of study?** (500 word limit)

Along with multiple college professors who helped design the program on our occupational advisory committee, we maintain close relationships with several postsecondary institutions that educate our graduates. Milton Hershey School alumni are able to make unique connections with current high school students by visiting campus and sharing their engineering experiences at a postsecondary level.

For example, in the 2017-18 school year, an MHS graduate who now attends Lehigh University [returned to the MHS classroom](https://www.mhskids.org/news/mhs-alumnus-experience-lehigh-university-hyperloop/) that sparked his initial interest in engineering. He shared his experience working on a special engineering team that was selected by Elon Musk, owner of Tesla Motors and SpaceX, to develop a national Hyperloop transportation project.

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)

|  |  |
| --- | --- |
| **Standard Types**  | **Please list the standards your program of study uses and how it uses them below:**  |
| Academic Standards | * R11.A.2.3.1— Make inferences and/or draw conclusions based on information from text.
* R11.B.3.3.4—Identify, explain, compare, interpret, describe, and/or analyze the sequence of steps in a list of directions.
* M11.B.2.1—Use and/or compare measurements of angles.
* M11.C.1—Analyze characteristics and properties of two- and three-dimensional geometric shapes and demonstrate understanding of geometric relationships.

By laying the foundation in math, science, and problem-solving, MHS students fulfill multiple academic standards while gaining hands-on skills that allow them to apply their knowledge in authentic ways.  |
| Career Cluster or Technical Standards | * ANSI Y14.100 Engineering Drawing Practices
* ASME Y14.4M Pictorial Drawing
* ISO-128 Technical Drawings, General Principles of Presentation

By fulfilling these technical standards, MHS students expand on their academic knowledge and receive specialized instruction on basic and complex engineering and architecture principles.  |
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# **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 view our* [*plan of study and course sequence*](https://www.dropbox.com/s/sibjq6u8ji9k53k/MHSEngineeringDesign_CourseSequence.pdf?dl=0) *to learn more about the engineering and architecture skills students receive throughout our career pathway.*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 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?**

While Engineering and Design students receive specialized instruction and hands-on learning opportunities, they also are required to attend core academic classes throughout the school day. Our CTE teacher incorporates math, science, reading, and writing competency learning lessons within each engineering and architecture design lesson. Lessons also include STEAM (Science, Technology, Engineering, Arts and Math) components and problem-based learning opportunities to help students become natural problem-solvers and 21st century learners.

For example, as students become familiar with AutoCAD software, they are tasked with creating a challenging 3D design of a chess piece. As they apply different techniques within the program and complete the open-ended, STEAM-based design, they can bring their work to life by printing their chess piece with the classroom’s 3D printer. This combines core academics like science, math and engineering with broad 21st century skills like creativity, critical thinking and problem-solving.

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)

Milton Hershey School students who qualify have the opportunity to take college classes during their senior year of high school to give them a head start on their postsecondary engineering degree—saving them time and money when they graduate. MHS seniors can earn up to 17 college credits by Temple University professors who teach at the MHS campus.

MHS also partners with Harrisburg Area Community College and Lebanon Valley College to offer nine college courses to students through the Career and Technical Education program. Students can take business, health science and general education classes to expand their classroom knowledge and prepare them for postsecondary 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?** |
| Penn College of Technology | An engineering professor from Penn College of Technology frequently visits the MHS campus to speak to classes and share his expertise with high school students. He also serves on the occupational advisory committee to guide our curriculum and allows MHS staff to visit the college to see firsthand what a postsecondary engineering classroom is like. | *7 years* – Our Engineering and Design teacher formed a relationship with a Penn College of Technology professor after approaching them to learn more about the postsecondary level.  |
| Lehigh University  | We encourage MHS alumni who attend Lehigh University to visit campus and inspire high school students who are enrolled in Engineering and Design classes by giving them an inside look at what college is like. They also answer their questions about postsecondary education, which is significant for many MHS students who are first-generation college students.  | *7 years* – Because many MHS alumni attend Lehigh University after graduation, we maintain these connections and encourage alumni to visit campus and share their knowledge with current high school students at MHS Career Days and other campus functions.  |
| Temple University  | For Engineering and Design students in particular, Milton Hershey School’s partnership with Temple University allows them to complete 17 credits of general education courses while they’re still in high school—giving them more freedom in their college schedule to take specialized engineering and architecture classes. | *3*+ *years* – As an alumnus of Temple University, MHS President Pete Gurt ’85 established this program for MHS students that allows them to take a full semester of college courses taught by Temple University faculty on the MHS campus. |
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# **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)

In addition to instruction that is aligned with accepted industry ANSI/ASME/AIA standards, the Engineering and Design pathway infuses employability skills that are critical for success in the 21st century workforce—including verbal and written communication, collaboration, public speaking, interview skills, work ethic, interpersonal communication and mutual respect.

Many of these soft skills are connected to the school’s nationally recognized [social and emotional learning curriculum](https://www.mhskids.org/life-mhs/programs/student-character-leadership/), which builds character and leadership skills at the pre-k through twelfth grade level. Students develop these skills in and out of the classroom through role playing activities, job shadowing opportunities, and mentorship programs that allow them to learn from professionals in the local community.

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

No—They are not required, but we are continuing to increase and encourage opportunities for summer internships and co-op programs. This past summer, nine students completed engineering and design summer internships at local engineering and architecture firms. The numbers have increased each year.

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

Because of the 11 career pathways available in Milton Hershey School’s Career and Technical Education program, MHS students have the unique opportunity to collaborate with students in other pathways. For example, over the last two years, Engineering and Design students created a custom design for a detailed residential home using Autodesk Revit software. After presenting their design to MHS staff and gaining feedback, acceptance, and eventual approval, the students then worked with Construction and Carpentry students to physically build the home on campus according to the students’ design specifications and approved worksheets.

Students not only saw their architecture designs come to life, but they gained the essential 21st century skill of empathy. As high schoolers who currently live in student homes across campus, they were able to truly understand and empathize with the type of person who would live in the constructed home. This hands-on, work-based learning opportunity will be an annual opportunity for top-performing students in the Engineering and Design pathway.

Students also can participate in the school’s internship program, which gives them the opportunity to complete a four-week internship over the summer between their junior and senior year for an authentic, hands-on work experience. More than 80 students throughout the entire CTE program completed an internship last summer.

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**  |
|  | AutoCAD Autodesk Certified User |
|  | Inventor Autodesk Certified User |
|  | Revit Autodesk Certified User |
|  | NOCTI Mechanical Drafting |
|  | NOCTI Architectural Drafting |

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)

We build relationships with professionals in the local business sector and college community to teach classes and serve on occupational advisory committees that guide our curriculum. Milton Hershey School also provides all CTE staff with professional development opportunities and has affiliations with nationwide organizations such as [NCLA-CTE](http://www.ncla-cte.org/), [ACTE](http://www.acteonline.org/), and [Advance CTE](https://www.careertech.org/).

We also maintain strong connections with MHS alumni who visit campus and speak to current students about exciting engineering projects. These types of relationships ensure students receive up-to-date training and lessons that are relevant to the modern workplace.

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?** |
| TE Connectivity  | As a company that designs and manufactures technology equipment, they provide our students with specific industry knowledge and insight that builds upon their classroom learning. By hosting summer interns, allowing our classes to visit their company, and visiting campus to present on various topics, TE Connectivity has significantly influenced the success of the Engineering and Design pathway. | *7 years—*This affiliation began when one of our students completed an internship in their office. Our relationship has continued to grow, and they have become a significant partner in our programming. |
| Hershey Entertainment & Resorts | Hershey Entertainment & Resorts helps students gain professional engineering experience through summer internships and classroom presentations. We also are coordinating an engaging weekly classroom series where a member of Hershey Entertainment & Resorts will visit campus and share job experiences with our Engineering & Design students. | *9 years—* They have been an active partner since before the program started, and played a major role in the development of the curriculum. As a company with a core mission to provide value to Milton Hershey School, they have always been accommodating to our students and staff.  |
| Chris Dawson Architecture  | As a local architecture firm, Chris has allowed our students to complete summer internships and workplace learning opportunities that give them a glimpse inside the local market and how architecture affects the Central Pennsylvania community.  | *7 years*— This affiliation began when one of our students completed an internship in their office. Our relationship has continued to grow, and they have become a significant partner in our programming. |
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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)**

In spring of 2017, the [SkillsUSA Champions Magazine](http://read.nxtbook.com/mercury/skillsusa/champions_spring_2017/index.html#drafting_a_place_to_live) highlighted the STEM 3D design class within our Engineering and Design career pathway. It explains how students create floor plans in 2D while simultaneously creating 3D models of homes that may eventually be constructed on the Milton Hershey School campus.

We also hosted a [Career and Technical Education conference](https://www.mhskids.org/cte-conference-highlights/) on campus in April of 2016 by partnering with Opportunity America to discuss strategies for connecting businesses and schools. We invited CTE experts, educators, government officials, and policy makers to campus to learn more about our hands-on internship program and partnership with Hershey Entertainment & Resorts. We also sparked important dialogue around new strategies for providing students with meaningful workplace experiences.

Our alumni success is also a testament to the success of our Engineering and Design program. One of our former engineering students is currently studying at Lehigh University and works on a special engineering team that was selected by Elon Musk to develop a national Hyperloop transportation project.

A former student who designed the home on campus, which is currently being built, now attends University of Southern California to further his engineering education.

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)

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| **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?** |
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# **SUBMIT YOUR APPLICATION**

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* 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.