Request for Proposals

Ohio Advanced Manufacturing and Engineering Pathways Program

November 17, 2026

Contact manpathway@battelle.org with questions.

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A. Award Details

Battelle Education hereby requests your organization to submit a written proposal based on the following:

Type of Agreement. Cost Reimbursement Subaward.

Period of Performance. This Agreement will include a Base Period from March 1, 2027 through July 30, 2028.

Evaluation Criteria and Basis of Award.

Program Alignment. The subawards resulting from this RFP will be awarded to the responsible offeror(s) whose offer conforms to this solicitation and is most advantageous to the goals of Battelle Education and its funder. The following evaluation factors, sub-factors, and respective weightings shall be used to determine proposal scoring and rankings.

1. Technical Evaluation (75%)
    a. Project Description
    b. Staffing
    c. Timeline
    d. Partnership Letters of Support
2. Budget Evaluation (25%)

Number of Awards. Battelle Education expects to make as many as 10 awards to public Ohio schools/districts.

Eligibility. Lead Education Agencies in Ohio that serve secondary students in public schools. ESC-led consortia of small/rural school districts may apply. Career Technical Centers may also serve as the lead applicant for a consortium of local school districts. LEAs previously funded by the Ohio Advanced Manufacturing and Engineering Pathways Program or by the Ohio 2027 CTE Access Grant: Work Advance Model for Manufacturing Pathways are not eligible for funding in this round of awards.

Applicant Costs. Any effort expended and any costs or expenses incurred by the Applicant because of this RFP shall be the sole responsibility of the Applicant. There is no obligation for Battelle Education to cover any Applicant costs incurred because of this RFP.

Cost/Price Submittal Requirements. The detailed information requested in Project budget and Budget Narrative shall be submitted as part of the Applicant's proposal/quote.

Terms and Conditions. The Terms and Conditions included herein shall apply to any subaward that is made because of this solicitation. Any exceptions or deviations taken to the terms and conditions must be noted in the proposal.

Funding. It is anticipated that up to $1.5 million will be available during this project, contingent on availability of funds.

1. Proposals should not exceed $150,000

2. Cost Share. Cost sharing or matching is not required to be responsive to this RFP.
3. Profit/fee. Profit/fee is not permitted.
4. Indirect costs. Awardees may apply an indirect rate of up to 15% on modified total direct costs (MTDC) to grant funds.
    a. Included in MTDC: direct salaries and wages, applicable fringe benefits, materials and supplies, services, travel and up to the first $50,000 of each subaward (regardless of length of award).
    b. Excluded from MTDC: equipment, capital expenditures, rental costs, tuition, scholarships and fellowships, and participant support costs.

Validity Date. The Applicant's proposal must remain valid for 120 days from the date of submission of the proposal. Applicants must click the checkbox on the form to attest to this.

Gratuities. By acknowledgment of response to this RFP, the Applicant hereby certifies that no gratuities were offered by the Applicant or solicited by any Battelle Education employee either directly or indirectly. Any situation where gratuity is solicited should be reported immediately to Battelle's Office of General Counsel.

Timeline for Selection Process.

RFP released	November 17, 2026
Proposals due	January 15, 2027, by 11:59 p.m. EST
Award notification	February 15, 2027
Program Kickoff Call	February 25, 2027 1 – 2:30 PM
Contract start date	March 1, 2027

Proposal Technical Assistance. Battelle Education is providing free, optional support for potential applicants through a Pathways Discovery Series, which includes virtual sessions, a Manufacturing Pathway Program site tour, preliminary feedback on proposal concepts, and an in-person design lab to help applicants strengthen their proposals prior to submission.

Applicants may submit an early proposal draft, or Concept Paper, for review by Battelle's technical assistance team. The Concept Paper Template and submission instructions are located here.

Concept Paper Due (optional)	December 1, 2026 (Due date)
Pathways Discovery and Design Lab – in Columbus Register Here	December 10, 2026

Technical and/or Contractual Inquiries. Any technical and/or contractual inquiries relative to this RFP should be directed to Battelle Education through the cognizant Subcontracting Representative, or

Program Manager as follows. Please note that the Subcontracting Representative is the only individual authorized to legally commit Battelle Education to the expenditure of funds related to this RFP.

Subcontracting Program Manager: Mariah Konrath, Email: konrath@battelle.org

Program Manager: Email manpathway@battelle.org

Proposal Submission. Proposals are required to be submitted online by 11:59 pm EST on January 15, 2027.

B. Background

A long-time manufacturing powerhouse, Ohio stands as the third-largest manufacturing state in the nation in terms of jobs and economic output. High-tech employers are pouring billions of dollars into Ohio. Intel, Honda and LG Energy Solution, Ford, and SEMCORP are just a few of the manufacturers whose investments in high-tech manufacturing are reshaping our economy.

With this opportunity comes a critical challenge. Across Ohio, manufacturers are projected to need more than 30,000 skilled technicians annually to meet workforce demand. Despite strong employer demand and growing career opportunities, the number of students entering and completing advanced manufacturing and engineering pathways remains insufficient to meet current and future workforce needs. This challenge requires stronger connections among K-12 education, postsecondary education, and industry so that more students can explore, prepare for, and successfully transition into high-demand manufacturing and engineering careers.

Ohio's education system provides students with opportunities for career exploration, hands-on learning, college credit attainment, work-based learning, and technical skill development aligned to industry needs. High-quality advanced manufacturing and engineering pathways prepare students for continued education and careers in occupations critical to Ohio's economy, including engineering, engineering technology, automation and robotics, industrial maintenance, and production systems. Through a combination of coursework, dual enrollment, industry engagement, and career-connected learning experiences, these pathways help students build the technical and durable skills needed to succeed in high-demand occupations identified in Appendix A.

While Ohio has expanded access to advanced manufacturing and engineering programs, increasing student awareness, enrollment, persistence, and successful transitions into postsecondary education and employment is a priority. The most effective pathways provide students with technical skills and credentials, and also help students understand career opportunities, develop clear postsecondary plans, and progress toward occupations that are essential to Ohio's manufacturing competitiveness and economic growth.

To increase the number and diversity of students pursuing a path that prepares them for a career in the field, Ohio must expand the availability of manufacturing programs at local school districts. This includes leveraging innovative opportunities for students to earn valuable industry-recognized credentials and college credits, through programs like College Credit Plus. This initiative will provide support for partnerships developing new innovative delivery models and expanding existing successful and innovative programs that focus on priority populations (Black, Hispanic, Native American, women, free or reduced-price lunch eligible and/or rural students) while removing barriers to participation and improving program quality. Identifying and addressing the barriers to participation is fundamental to our work. Growing the economy while also diversifying the workforce of the future is a top priority for the state.

C. Project Description

Battelle Education will partner with as many as 10 public schools and/or consortia in Ohio to develop innovative delivery models for Advanced Manufacturing and Engineering programs that offer secondary students' pathways to Ohio's most important industries. Priority will be given to new pathways; however, proposals for expansion and significant enhancement of existing programs will be considered.

The grants are designed to elicit locally relevant partnerships among educators, employers, and community organizations that respond to the challenges of preparing a diverse advanced manufacturing and engineering workforce, including barriers to participation, especially for priority populations.

Applicants must collaborate with their local Career Technical Planning District (CTPD) during project development and provide evidence of that consultation as part of the application. In addition, applicants are strongly encouraged to engage their local Career Pathways Support Network (CPSN) and describe how regional partners informed the proposed pathway design.

To be eligible for funding, applicants must demonstrate a partnership with an institute of higher education (IHE) **and** an industry partner. They will describe innovative cross-sector partnerships, course/content delivery, career advising, connections to college credits and/or industry credentials, and work-based learning. Pathways must lead to one or more of the high-value, high-priority occupations identified in Appendix A. In addition, they will describe relevant high-priority populations and plans for increasing their participation.

Awardees will be required to document their progress by reporting performance metrics and demonstrating achievement of critical benchmarks for student success. Awardees must collect and report data on each student who is enrolled in the manufacturing or engineering pathway program during and for up to two full years of the program. The Awardee is responsible for coordinating the collection of data, verifying the accuracy of the data, and submitting the data by deadlines established by Battelle Education.

To support Awardees throughout the project, Battelle Education will provide technical assistance through a combination of required meetings and on-demand support to strengthen Awardee capacity and improve performance. Technical assistance will be available to support Awardees in the following areas: engaging industry and institute of higher education partners; student recruitment (especially priority populations); and program design and implementation. As Awardees identify areas for improvement or additional assistance, Battelle Education will connect them with consultant(s) who can provide targeted expertise and guidance.

D. Statement of Work

1. Manage the Overall Project

Awardees will maintain quality control and timeliness throughout the life of the project. During all phases of the contract, Awardees will inform Battelle Education of progress and obstacles and/or issues encountered, proposed solutions, and next steps. Awardees are expected to participate in all activities outlined in Section F: Period of Performance and Milestones.

2. Implement a New or Expanded Advanced Manufacturing or Engineering Pathway

Awardees will ensure all components are in place to implement a new or expanded manufacturing or engineering pathway including:

- Course of study;
- Staff with appropriate licensure and experience;
- IHE and industry partnerships;
- Work-based learning opportunities aligned with ODEW's definition of Work-Based Learning;
- Plan for the identification, recruitment, and enrollment of a full cohort of students; and
- Plan for purchasing equipment/supplies.

All Awardees are expected to implement new or expanded pathways at the beginning of the 2027–2028 school year.

3. Participate in a Community of Practice (CoP)

Each awarded partnership must designate at least two representatives to participate in the CoP. The CoP provides opportunities for Awardees to share promising practices, connect with peers across Ohio, and build the knowledge and capacity to implement and sustain their pathway program. The CoP will meet monthly from March 2027 to June 2028 and will be a combination of in-person and virtual meetings. Meetings will include peer-to-peer learning, issue-specific training, and targeted technical assistance.

4. Reporting

Awardees will complete monthly project updates that include progress toward plan and student data, including, but not limited to, the:

- Number of students enrolled in the pathway;
- Retention rate of enrolled students;
- Number of students who earned a high value credential;
- Student demographic information; and
- Student persistence in the pathway program leading to a credential of value.

Battelle Education will provide a reporting template to Awardees.

5. Fiscal Management

Awardees must provide monthly invoices (with appropriate backup documentation) to Battelle Education, ensuring transparent and consistent accounting. Awardees must spend all award dollars by July 30, 2028.

6. Quality Management

a. *Quality*. Each Awardee is responsible for ensuring the quality of work and services provided to students.
b. *Record Maintenance*. Awardees are expected to maintain records of deliverables, issue resolutions, and critical discussions leading to decision making. Issue resolution records shall include issue identification, causal analysis of issue(s), and actions taken to resolve issues.
c. *Issue Resolution*. Awardees shall follow Battelle's provided process for issue resolution to ensure early identification and timely resolution of issues related to implementing their pathway plan.
d. *Performance Measures*. Awardees are expected to meet or exceed performance measures throughout the life of the project. Performance measures include:
    i. Timeliness (e.g., on-time submission of deliverables, maintaining schedule of school/district plan);
    ii. Responsiveness (i.e., response to and resolution of issues); and
    iii. Quality of Service (e.g., achievement of critical benchmarks for student success)
e. *Performance Evaluations*. Awardees may be subject to performance evaluations by Battelle Education. Performance evaluations are conducted to ensure (1) Awardees provide quality deliverables and services in the performance of this project in accordance with this Statement of Work (SOW); and (2) continuous improvement opportunities are provided to Awardees. During performance evaluations, Awardees shall furnish, at no increase in the award price, all reasonable documents and assistance for the safe and convenient performance of these duties. Battelle Education shall bear its own expenses related to conducting performance evaluations and will provide performance evaluation results promptly upon completion.

E. Deliverables

1. Implementation plan
2. Recruitment plan
3. Monthly project update
4. Monthly financial report
5. Program and student data
6. Poster or video featuring the program for the Ohio STEM Innovation Summit
7. Final report

F. Period of Performance and Milestones

Period of Performance	March 1, 2027 – July 30, 2028
Virtual Kick-off Meeting	February 25, 2027, 1:00 – 2:30 PM
Contract start date	March 1, 2027
MPP Design Lab 1 – in person, Columbus	March 9, 2027, 9:00 AM – 2:30 PM
Monthly CoP meetings	Monthly, March - June 2028
Ohio STEM Innovation Summit Attend/Present	June 16, 2027 and June 2028
Monthly reports due	15th of each month
Monthly invoices due	15th of each month for prior month
Final report	July 30, 2028

G. Proposal Content and Requirements

Applicants must outline in detail how their specific proposal will address six key components of implementing a successful career pathway. Awardees will need to demonstrate their intentionality in developing or expanding innovative solutions to cross-sector partnerships, course and/or content delivery, awarding of college credit, work-based learning, career advising, and recruitment of priority populations.

All proposals must be submitted online by 11:59 PM EST on January 15, 2027. The review team appreciates clear, concise, complete, carefully written, and proofread proposals that meet all guidelines.

Page limits are noted below and are defined as 8.5" x 11" pages (standard letter size), double-spaced, with one-inch margins and using Arial 11-point font. Number all pages and include the applicant's name in the header of each page.

Each proposal section should be saved as a PDF in the following format: DISTRICT OR SCHOOL NAME_PROPOSAL SECTION (e.g., BATTELLEHIGHSCHOOL_SECTIONNUMBER.)

Section 1: Program Description and Narrative (15 page maximum for this section)

1. **Cover Page:** Include the date, organization's name, mailing address, telephone number, website, and name, email address, and telephone number for the technical and contractual points of contact. (1 page maximum)
2. **Project Abstract:** Provide a summary of the planned pathway program. Include the names of the school/district, IHE, and industry partners. (1 page maximum)
3. **Program Description:** Describe a well-designed approach to implementing a new or expanded Advanced Manufacturing or Engineering pathway. In addition to the information requested below, the narrative should provide details about how this pathway addresses local/regional employment needs and how it will impact the community. The description should address any local challenges for the specific program requirements. These may include, but are not limited to, student transportation, student recruitment from targeted populations, staffing, and sustainability.
    a. **Course and/or Content Delivery:** Applicants must collaborate with their local CTPD during pathway development and provide evidence of that consultation as part of the application. Evidence of this consultation may be in the form of a letter (included with the Letters of Support), meeting notes, or a description in the narrative. The consultation should inform pathway design, course sequencing, alignment with regional career-technical education offerings, and long-term sustainability of the proposed pathway.

        Applicants should describe which pathway courses will be offered and when, and which students will be eligible to enroll in the courses. Battelle Education expects to see innovation in the delivery methods and processes through which students are receiving instruction on advanced manufacturing skills. Innovative approaches to course or content delivery may include:
        i. Flexible learning environments
        ii. Independent learning and assessment of skills
        iii. Blended instructional models

iv. Opportunities to learn while on the job
v. Integrating technical and academic content
vi. Shared instruction with an employer partner
vii. Locally developed, innovative models

b. **Cross-Sector Partnerships:** Strong industry-education partnerships are essential to building high-quality career pathways that lead to economic mobility and meet workforce demand. These partnerships must be mutually beneficial and address the education and skills needed across K-12, higher education, and workforce. Applicants must identify in their proposals which partners will be actively engaged in the design and implementation of the program so that it directly aligns with the industry's skill and talent needs. Applicants are strongly encouraged to engage their regional CPSN early in the pathway development process. At least one industry **and** one IHE partner are required. The description should include clear roles of the district, IHE, and industry partners, including identifying key staff, their roles, and institutional commitments. Partnerships can be existing or new and must be documented with signed partnership letters of support that outline partner roles and commitments.

c. **College Credit and Industry Recognized Credentials:** Applicants must describe how students' knowledge and skills will be validated beyond high school credit, through opportunities for students to earn college credit and industry-recognized credentials. College credit aligned to high-value degree or certificate programs may be awarded through College Credit Plus, Career Technical Assurance Guides, Industry Credential Transfer Assurance Guides, Advanced Placement courses, International Baccalaureate courses or other similar programs. The approach to industry recognized credentials should be aligned to Ohio's Industry Recognized Credential Guide, with the understanding that the state's guide is in the early stages of implementation and will be updated concurrently with the planning and implementation phases of this project. Methods for content delivery for college-level coursework and industry credential assessment preparation should align with the above innovations in course and/or content delivery.

d. **Career Advising:** To assist students with making educated decisions about entering career pathways, applicants must ensure robust career advising is included as part of the program design. It should be adaptable to address the needs of diverse students and communities and provide the necessary outreach and support to ensure success. Applicants should design pathways that align with Ohio's Career Connections Framework, which outlines career advising processes in grades K-12. Innovative approaches to career advising may include:
    - Shared advising services between K-12, IHE, and industry partners
    - Advisors employed by partner and community organizations
    - Advising services that extend beyond the length of the program
    - Advising that intentionally integrates family members and other key adults
    - Intentional use of interest and aptitude data to identify potential participants
    - Other innovations not listed here

e. **Work-Based Learning:** Applicants must include significant and sustained work-based learning as a part of each student's career pathway. Applicants should describe how they will create innovative solutions to address barriers to work-based learning. Work-based learning

opportunities should be directly aligned to the skills needed for employment and should be a direct application of students' learning. Awarding high school credit for work-based learning experiences should be considered. Work-based learning has many formats, including:

- Paid part-time roles for high schoolers in a manufacturing environment (ideal)
- Employer-provided business problems for capstone projects
- Manufacturing facility tours
- Employer-led hands-on learning
- Career Readiness involvement – mock interviews, etc.

f. **Recruitment of Priority Populations:** Applicants must include a plan of how priority will be given to the recruitment of populations who have been traditionally underserved and underrepresented in the manufacturing industry (e.g., Black, Hispanic, Native American, women, free or reduced-price lunch eligible and/or rural). The narrative should describe the approach(es) to be used to identify and recruit students to participate in the pathway and describe in detail the project's efforts to recruit priority populations, including outreach to families. Applicants should address how recruitment will take place for program launch in August 2027, *which likely will be outside of typical school timelines for course selection and scheduling*.

g. **Plan for Sustainability:** Applicants should demonstrate the program's long-term fiscal sustainability, especially as the program expands to include additional cohorts of students. Applicants should identify how funds from multiple sources (including State Foundation Funding, Career Technical Education Weighted Funds, Industry Recognized Credential Reimbursement, Innovative Workforce Incentive Program, Career Exploration & Awareness Funding, Ohio Facilities Construction Commission, local tax revenue, grant funds, local contributions, in-kind resources, etc.) will be used to cover the costs to continue the program beyond pilot grant funding.

h. **Reporting:** Applicants should describe how they will ensure the provision of accurate and verified data for each student enrolled in the pathway program for up to two full years of the program.

4. **Staffing:** Applicants should describe the approach to staffing, detailing the staff who will manage the overall project, participate in the CoP, and implement key components including student recruitment, pathway design and course delivery, liaising with higher ed and industry partners, data collection, and reporting. The description should include the qualifications of key professional staff, including their education, training, and experience. If staff have not been identified to teach the pathway courses, include a plan for hiring, including a potential job posting.

Section 2: Project Timeline, Project Budget and Budget Narrative

1. **Timeline:** Explain the timeline for the project in some detail. **All Awardees are expected to implement their pathway program at the beginning of the 2027-2028 school year.** Highlight the major project milestones with expected date of completion and responsible party. It may be helpful to reviewers if you present a visual version of your timeline. (1-page maximum)
2. **Project Budget and Narrative** should include:

a. An itemized budget reflecting requested support. Proposals should not exceed $150,000. The applicant must use the Cost Template form in Appendix B and attach it as a PDF. Personnel rates and hours must be included. All costs included in the budget must be directly related to the proposed project. Appendix C details allowable and unallowable costs. The funding amounts in your Budget Narrative should match the funding amounts on your Budget Form.
b. Specify cost-sharing or in-kind contributions (e.g., university in-kind support, school district support, leveraged funds from other state and national sources). Cost-share is not a requirement for proposal submission.
c. Cost per participant (i.e., entire budget/number of expected student participants in 2027-2028 school year).
d. Indirect costs.
e. A Budget Narrative that explains each budget line item for your budget request. Your budget must be consistent with your proposed activities, and your Budget Narrative must justify your proposed expenditure.

Section 3: Partnership Letters of Support.

At a minimum, applicants must submit one letter of support from an IHE partner *and* one letter of support from an industry partner. Letters of support should outline the partner's roles and responsibilities in the project and commitment to supporting the proposed project. Letters should include clear commitments from both IHE and industry partners such as providing credit opportunities or work-based learning opportunities. Additional letters may be submitted by other partners or collaborators

H. Evaluation Criteria

Proposals will be screened to ensure the applicant is eligible and the proposal is compliant with the RFP. A review panel consisting of members from Battelle Education and project partners will review applications. Reviewers will score the applications, basing their scoring decisions and funding recommendations on the evaluation criteria specified in this program announcement. The following criteria will be used to score proposals. Proposals must address all evaluation criteria.

1. **Program Description** – The narrative includes a well-designed pathway with the following factors:
    1. Industry and IHE partnerships highlight the commitments, contributions, and collaboration from the partners. The applicant identifies and leverages the unique assets of each partner (e.g., K-12, IHE, industry).
    2. Innovative curriculum that includes flexible delivery models.
    3. Opportunities to earn college credit and/or high-value industry credentials and be prepared for the workforce by the end of the program.
    4. Robust career advising that helps students and families understand the expectations and benefits of enrolling in the pathway.
    5. Industry skills and curriculum-aligned work-based learning opportunities, preferably paid experiences for students in industry-based settings.
    6. A plan for the recruitment of priority populations, including the approach to identify and recruit students from priority populations (e.g., Black, Hispanic, Native American, women, free or reduced-price lunch eligible and/or rural).
    7. A plan for how the program will be sustained and scaled beyond pilot grant funding, especially as the program expands to include additional cohorts of students.
    8. A plan to collect and report accurate and verified data for each student enrolled in the pathway program for up to two full years of the program.
2. **Staffing** – The proposal describes the applicant's staffing plan to execute the project. Appropriately licensed staff are available or there is a plan to train or hire staff to meet curriculum requirements. Roles are clearly described. The staffing pattern clearly links responsibilities/levels of efforts to project tasks.
3. **Timeline** – Timeline provides project milestones highlighted with time frame and responsible party.
4. **Partnership Letters of Support** – Letters are provided from both the IHE and industry partner. Letters of support describe contributions, commitments, and collaboration in support of the pathway project. Additional letters may be submitted by other partners or collaborators.
5. **Project Budget/Narrative** – Description of expenditures are appropriate, reasonable, and necessary to support the project activities and goals. The expenditures and activities are supplemental to and do not supplant or duplicate services currently provided. Program budgets will be evaluated based on the number of students to be served, the quality of the program design, and efficient use of funds and other resources.

Appendix A: Advanced Manufacturing & Engineering Technology Occupations

Occupations listed in Appendix A represent career pathway destinations within Advanced Manufacturing and Engineering and are included on JobsOhio's Priority Occupations List. Applicants should demonstrate how their proposed pathway supports progression toward one or more of these occupations. Industry-recognized credentials, coursework, dual enrollment, postsecondary education, and work-based learning experiences should collectively support progression toward these occupations. Individual credentials are not expected to align one-to-one with every occupation listed.

Occupation Title	SOC Code	Ohio Manufacturing Competency Model Alignment	Related Ohio CTE Pathway Areas
ENGINEERING			
Electrical Engineers	17-2071	Engineering Design; Automation & Controls	Engineering & Science Technologies
Electronics Engineers, Except Computer	17-2072	Engineering Design; Automation & Controls	Engineering & Science Technologies
Industrial Engineers	17-2112	Continuous Improvement; Production Systems	Engineering & Science Technologies; Manufacturing Technologies
Materials Engineers	17-2131	Materials & Manufacturing Processes; Engineering Design	Engineering & Science Technologies
Mechanical Engineers	17-2141	Engineering Design; Manufacturing Systems	Engineering & Science Technologies
ENGINEERING DESIGN			
Electrical and Electronics Drafters	17-3012	Engineering Design; Technical Documentation	Engineering Design; CAD/Drafting
Mechanical Drafters	17-3013	Engineering Design; Technical Documentation	Engineering Design; CAD/Drafting
AUTOMATION, ROBOTICS & SMART MANUFACTURING			
Aerospace Engineering and Operations Technologists and Technicians	17-3021	Advanced Manufacturing Systems; Automation & Controls	Advanced Manufacturing; Engineering Technologies
Electrical and Electronic Engineering Technologists and Technicians	17-3023	Automation & Controls; Electrical Systems	Mechatronics; Electrical Systems Technology
Electro-Mechanical and Mechatronics Technologists	17-3024	Mechatronics; Robotics; Automation & Controls	Mechatronics; Robotics & Automation

Occupation Title	SOC Code	Ohio Manufacturing Competency Model Alignment	Related Ohio CTE Pathway Areas
and Technicians			
Industrial Engineering Technologists and Technicians	17-3026	Continuous Improvement; Production Systems	Advanced Manufacturing; Industrial & Engineering Systems
Mechanical Engineering Technologists and Technicians	17-3027	Mechanical Systems; Manufacturing Systems	Mechatronics; Industrial & Engineering Systems
Calibration Technologists and Technicians	17-3028	Instrumentation; Quality; Automation & Controls	Mechatronics; Automation & Controls
Engineering Technologists and Technicians, Except Drafters, All Other	17-3029	Advanced Manufacturing Systems; Engineering Technology	Advanced Manufacturing; Engineering Technologies
INDUSTRIAL MAINTENANCE & RELIABILITY			
First-Line Supervisors of Mechanics, Installers, and Repairers	49-1011	Maintenance Operations; Leadership	Industrial Maintenance; Industrial & Engineering Systems
Electrical and Electronics Repairers, Powerhouse, Substation and Relay	49-2095	Electrical Systems; Maintenance & Repair	Industrial Maintenance; Electrical Systems Technology
Electrical and Electronics Repairers, Commercial and Industrial Equipment	49-2094	Electrical Systems; Maintenance & Repair	Industrial Maintenance; Electrical Systems Technology
Control and Valve Installers and Repairers, Except Mechanical Door	49-9012	Fluid Power Systems; Maintenance & Repair	Industrial Maintenance; Mechatronics
Industrial Machinery Mechanics	49-9041	Maintenance & Repair; Mechanical Systems	Industrial Maintenance
Maintenance Workers, Machinery	49-9043	Maintenance & Repair	Industrial Maintenance
Millwrights	49-9044	Mechanical Systems; Industrial Maintenance	Industrial Maintenance
PRODUCTION SYSTEMS PATHWAY			
Industrial Production Managers	11-3051	Production Systems; Operations Management	Manufacturing Technologies
First-Line Supervisors of Production and Operating Workers	51-1011	Production Systems; Operations Leadership	Manufacturing Technologies
Engine and Other Machine	51-2031	Production Operations;	Manufacturing

Occupation Title	SOC Code	Ohio Manufacturing Competency Model Alignment	Related Ohio CTE Pathway Areas
Assemblers		Manufacturing Processes	Technologies
Machinists	51-4041	Precision Manufacturing; Machining	Precision Machining
Tool and Die Makers	51-4111	Precision Manufacturing; Tooling	Precision Machining
Welders, Cutters, Solderers, and Brazers	51-4121	Fabrication; Manufacturing Processes	Welding
Semiconductor Processing Technicians	51-9141	Advanced Manufacturing Systems; Semiconductor Manufacturing	Advanced Manufacturing; Engineering Technologies
Computer Numerically Controlled Tool Programmers	51-9161	Precision Manufacturing; CNC Operations	Precision Machining

Appendix B: Cost Template

Organization:				
				Total Budget
Personnel	**Position**	**% Effort**	**Projected Labor Hours**	
			TOTAL Personnel Salaries	
			TOTAL Fringe Benefits	
Equipment				
			TOTAL Equipment	
Travel	Workforce/college site visits			
			TOTAL Travel	
Materials/Supplies	Meetings			
	Technology			
	Miscellaneous (explain):			

	TOTAL Materials/Supplies	
Contractual Services	Professional development	
	TOTAL Contractual Services	
Student Support	Curriculum, textbooks, learning materials	
	Student transportation	
	Student uniforms	
	TOTAL Student Support	
	TOTAL Direct	
Indirect Cost	**TOTAL Indirect (Calculate):**	
	TOTAL	

Appendix C: Allowable and Unallowable Costs

Allowable Expenditures:

- Professional development to enable educators to obtain needed licenses to teach pathway courses.
- Up to 15% of the total award amount may be used for staff capacity and personnel costs directly related to project implementation.
- Purchase of new equipment or upgrades to existing equipment.
- Workshops and planning meetings between partners and including counselors, families, higher ed staff/faculty, and business leaders to support program sustainability and build awareness on the benefits for having such programs.
- Travel to CoP meetings (limited to in-Ohio travel).
- Teacher training stipends.
- Software to track engagements with students.
- Curriculum, textbooks, and other supplemental learning materials.
- Items to remove student barriers to participation, including transportation, uniforms, tools, safety boots, etc.
- Workforce/college site visits.
- Creation and distribution of recruitment and enrollment materials/events.
- Technology/software needs outside of "program equipment."

Unallowable Expenditures:

- Supplanting of existing funding and efforts, including costs otherwise necessary to operate a school without this grant.
- Acquisition of equipment for administrative or personal use.
- Acquisition of furniture (e.g., bookcases, chairs, desks, filing cabinets, tables) unless it is an integral part of an equipment workstation or is used to provide reasonable accommodations to students with disabilities.
- Purchase or rental of space.
- Remodeling not directly connected to accessibility to manufacturing career pathway instruction or services.
- Travel outside United States.
- The indirect costs of partner organizations.