

Budget

Medina County Joint Vocational School District (062109) - Medina County - 2015 - Straight A Fund - Rev 0 - Straight A Fund - Application Number (21)

U.S.A.S. Fund #:

Plus/Minus Sheet ([opens new window](#))

| Purpose Code | Object Code | Salaries 100 | Retirement Fringe Benefits 200 | Purchased Services 400 | Supplies 500 | Capital Outlay 600 | Other 800 | Total |
|----------------------------|-------------|--------------|--------------------------------|------------------------|--------------|--------------------|-----------|-------------|
| Instruction | | 0.00 | 0.00 | 0.00 | 0.00 | 955,415.00 | 0.00 | 955,415.00 |
| Support Services | | 0.00 | 0.00 | 20,000.00 | 0.00 | 0.00 | 0.00 | 20,000.00 |
| Governance/Admin | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Prof Development | | 9,360.00 | 1,486.00 | 0.00 | 0.00 | 0.00 | 0.00 | 10,846.00 |
| Family/Community | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Safety | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Facilities | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Transportation | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total | | 9,360.00 | 1,486.00 | 20,000.00 | 0.00 | 955,415.00 | 0.00 | 986,261.00 |
| Adjusted Allocation | | | | | | | | 0.00 |
| Remaining | | | | | | | | -986,261.00 |

Application

Medina County Joint Vocational School District (062109) - Medina County - 2015 - Straight A Fund - Rev 0 - Straight A Fund - Application Number (21)

Please respond to the prompts or questions in the areas listed below in a narrative form.

A) APPLICANT INFORMATION - General Information

1. Project Title:

STEM ENGINEERING AND MANUFACTURING ACADEMY at Medina County Joint Vocational School, serving 7 high school districts in Medina County.

2. Executive summary: Please limit your responses to no more than three sentences.

Grant funding will facilitate the consolidation of an Engineering Technologies/Design Program and a Precision Machining Technology Program into a Science, Technology, Engineering, and Math (STEM) ENGINEERING AND MANUFACTURING ACADEMY. The STEM ACADEMY in partnership with Automation Tool and Die, Inc., a local manufacturing facility, and the Adult Division of Medina County Joint Vocational School will use a shared delivery model focused on attaining higher student achievement. Placing state-of-the-art equipment in the Academy will lead to opportunities for students to participate in internships and apprenticeships in preparation for challenging and demanding engineering and manufacturing careers.

This is an ultra-concise description of the overall project. It should not include anything other than a brief description of the project and the goals it hopes to achieve.

500 3. Total Students Impacted:

This is the number of students that will be directly impacted by implementation of the project. This does not include students that may be impacted if the project is replicated or scaled up in the future.

4. Please indicate which of the following grade levels will be impacted:

- | | |
|--|--|
| <input type="checkbox"/> Pre-K Special Education | <input type="checkbox"/> Kindergarten |
| <input type="checkbox"/> 1 | <input type="checkbox"/> 2 |
| <input type="checkbox"/> 3 | <input type="checkbox"/> 4 |
| <input type="checkbox"/> 5 | <input type="checkbox"/> 6 |
| <input type="checkbox"/> 7 | <input type="checkbox"/> 8 |
| <input type="checkbox"/> 9 | <input type="checkbox"/> 10 |
| <input checked="" type="checkbox"/> 11 | <input checked="" type="checkbox"/> 12 |

5. Lead applicant primary contact: - Provide the following information:

First Name, last Name of contact for lead applicant
Steve Chrisman, M.Ed., Principal

Organizational name of lead applicant
Medina County Career Center, J.V.S.D. #IRN: 062109

Address of lead applicant
1101 West Liberty Street, Medina, OH 44256

Phone Number of lead applicant
330-725-8461

Email Address of lead applicant
SChrisman@mcjvs.edu

6. Are you submitting your application as a consortium? - Select one checkbox below

- Yes
 No

If you are applying as consortium, please list all consortium members by name on the "Consortium Member" page by clicking on the link below. If an educational service center is applying as the lead applicant for a consortium, the first consortium member entered must be a client district of the educational service center.

[Add Consortium Members](#)

7. Are you partnering with anyone to plan, implement, or evaluate your project? - Select one checkbox below

Yes

No

If you are partnering with anyone, please list all partners by name on the "Partnering Member" page by clicking on the link below.

[Add Partnering Members](#)

B) PROJECT DESCRIPTION - Overall description of project and alignment with goals

8. Describe the innovative project: - Provide the following information

The response should provide a clear and concise description of the project and its major components. Later questions will address specific outcomes and the measures of success.

The current state or problem to be solved; and

Problem: Medina County, located in Northeast Ohio lacks a STEM program for high school students. This suburban/rural county is located within a 35 mile radius of Cleveland and Akron, both offering engineering and manufacturing opportunities.

The proposed innovation and how it relates to solving the problem or improving on the current state.

THROUGH THE SUPPORT OF STRAIGHT A FUNDS, THE CONSOLIDATION OF TWO TECHNICAL PROGRAMS INTO A STATE-OF-THE-ART STEM ACADEMY CAN BE ACHIEVED AT THE MEDINA COUNTY JOINT VOCATIONAL SCHOOL (MCJVS). MCJVS, established in 1974, was built with the intent of future renovations for the development of emerging programs as older programs become obsolete. Following the consolidation of two trade programs into a Construction Trade Program in 2013, the availability of space makes this project feasible. To create the STEM Academy, the Engineering Technologies/Design Program will move from the second floor to the first floor next to the Precision Machining Technology Program. Under the umbrella of a STEM Academy shared instructional staff, curriculum modules, facilities, equipment, and technology (both current and new) will be used to deliver instruction. IT IS THE COST OF THE HIGH-END ENGINEERING AND MANUFACTURING EQUIPMENT TO REPLACE ANTIQUATED EQUIPMENT THAT IS REQUESTED THROUGH THIS GRANT FUNDING IN ORDER TO ESTABLISH THE STEM ACADEMY. The STEM Academy, in partnership with Automation Tool & Die (AT&D), will meet today's engineering, manufacturing, and robotics standards. Student internships will be available through this partnership. AT&D is also a stakeholder in a Tool & Die Apprenticeship program registered with the State of Ohio, offered by the Adult Division of MCJVS. Graduates of the STEM Academy will be eligible candidates for this apprenticeship opportunity. The Partnership with the Adult Division of MCJVS will provide OSHA training for students in the STEM Academy. As an added benefit, the Adult Education Division of MCJVS will be able to utilize the facilities to provide specialized OSHA training for the business and industrial community. Providing this OSHA training will bring exposure of the STEM Academy to prospective employers of our graduates. MCJVS prides itself on continually modifying the curriculum based on the demand of the business community. The STEM ENGINEERING AND MANUFACTURING ACADEMY at MCJVS will become a reality with the resources provided through Ohio's Straight A Fund.

9. Which of the stated Straight A Fund goals does the proposal aim to achieve? - (Check all that apply)

Applicants should select any and all goals the proposal aims to achieve. The description of how the goals will be met should provide the reader with a clear understanding of what the project will look like when implemented, with a clear connection between the components of the project and the stated goals of the fund. If partnerships/consortia are part of the project, this section should describe briefly how the various entities will work together in the project. More detailed descriptions of the roles and activities will be addressed in Question 16.

Student achievement (Describe the specific changes in student achievement you anticipate as a result of this innovation (include grade levels, content areas as appropriate) in the box below.)

STEM education unites science and math academic content with engineering and technology and facilitates students to learn real-life skills through hands-on learning. The vocational STEM Engineering and Manufacturing Academy will focus on student engagement in order to foster creativity and innovation. Student achievement is measurable through: Summer Internships - grade 11; Industry Test Results - grade 11, 12; Job Placement - grade 12; and College/Apprentice Readiness - grade 12.

Spending reductions in the five-year fiscal forecast or positive performance on other approved fiscal measures (Describe the specific reductions you anticipate in terms of dollars and spending categories over a five-year period in the box below or the positive performance you will achieve on other approved fiscal measures. Other approved fiscal measures include a reduction in spending over a five-year period in the operating budget approved by your organization's executive board or its equivalent.)

Spending reductions will occur through the sharing of both grant and future expenditures on equipment, technology, and resources. Duplicate expenditures will be eliminated. The consolidation of two trade programs eliminated one Full Time Equivalent (FTE) staff salary & benefits through retirement and continues cost savings into the future.

Utilization of a greater share of resources in the classroom (Describe specific resources (Personnel, Time, Course offerings, etc.) that will be enhanced in the classroom as a result of this innovation in the box below.)

96% OF THE GRANT FUND REQUEST IS FOR EQUIPMENT AND RESOURCES THAT WILL BE PLACED IN THE STEM ACADEMY FOR HANDS-ON STUDENT USE. Through the STEM Academy, sharing of resources results in equipment being used throughout the school day as opposed to sitting idle when theory through lecture or demonstration is the mode of instruction. Administrators and instructors will jointly develop a schedule for STEM Lab usage that maximizes the use and sharing of equipment. The STEM Lab will also be utilized by the Adult Division of MCJVS throughout the summer for specific classes designed for business and industry. Sharing resources will occur at all levels - new equipment, current equipment, and educational software as follows: NEW EQUIPMENT: Computer Numerical Control, Inspection Room and Conventional Tooling & Equipment (A comprehensive and detailed list of new equipment items is available under Application Question #12.) CURRENT EQUIPMENT: laser engraver, 3D powder printer, 3D plastic printer, robot arm, plotter, drill press, lathe, milling machine, EDM, CNC mill, CND lathe. EDUCATIONAL SOFTWARE: Inventor - Auto/CAD, Master CAM, Tooling U

Implementing a shared services delivery model (Describe how your shared services delivery model will demonstrate increased efficiency and effectiveness, long-term sustainability, and scalability in the box below.)

The supporting proposition to consolidate two programs is to provide for a shared delivery model of instruction. Our instructional staff will cross-teach in their respective areas of expertise within the programs of the academy thus providing the highest level of instruction. Cross-teaching will align with the Ohio Department of Education's model for vocational training, moving from programs to courses. Under this model - the instructional modules to be taught include: CNC Milling, Materials, Production & Process Design, Measurement & Interpretation, Drill & Tap Design Process, Inventor/Auto CAD, and Reverse Engineering. The partnership with Automation Tool & Die, Inc., adds to this shared delivery model through guest speakers, observations, summer internships and apprenticeship opportunities. The partnership with the Adult Division of MCJVS will provide instruction leading to OSHA Certification for the Academy Students.

10. Which of the following best describes the proposed project? - (Select one)

New - never before implemented

Existing: Never implemented in your community school or school district but proven successful in other educational environments

Mixed Concept: Incorporates new and existing elements

Established: Elevating or expanding an effective program that is already implemented in your district, school or consortia partnership

C) SUSTAINABILITY - Planning for ongoing funding of the project, cost breakdown

11. Financial Documentation: - All applicants must enter or upload the following supporting information. The information in these documents must correspond to your responses in questions 11-14.

* Enter a project budget in CCIP (by clicking the link below)

[Enter Budget](#)

* If applicable, upload the Consortium Budget Worksheet (by clicking the link below)

* Upload the Financial Impact Table (by clicking the link below)

* Upload the Supplemental Financial Reporting Metrics (by clicking the link below)

[Upload Documents](#)

For applicants without an ODE Report Card for 2012-2013, provide a brief narrative explanation of the impact of your grant project on per pupil expenditures or why this metric does not apply to your grant project instead of uploading the Supplemental Financial Reporting Metric.

The project budget is entered directly in CCIP. For consortia, this project budget must reflect the information provided by the applicant in the Consortium Budget Worksheet. Directions for the Financial Impact Table are located on the first tab. Applicants must submit one Financial Impact Table with each application. For consortium applications, each consortium member must add an additional tab on the Financial Impact Tables. Partners are not required to submit a Financial Impact Table.

Applicants with an "Ohio School Report Card" for the 2012-2013 school year must upload the Supplemental Financial Reporting Metrics to provide additional information about cost savings and sustainability. Directions for the Supplemental Financial Reporting Metrics are located on the first tab of the document. If your organization does not have an "Ohio School Report Card" for the 2012-2013 school year, please provide an explanation in the text box about how your grant project will impact expenditures per pupil or why expenditure per pupil data does not apply to your grant project.

Educational service center, county boards of developmental disabilities, and institutions of higher education seeking to achieve positive performance on other approved fiscal measures should submit the budget information approved by an executive board or its equivalent on the appropriate tabs of the Financial Impact Table. Educational service centers should use the "ESC" tab and county boards of developmental disabilities and institutions of higher education should use the "non-traditional" tab.

12. What is the total cost for implementing the innovative project?

Responses should provide rationale and evidence for each of the budget items and associated costs outlined in the project budget. In no case should the total projected expenses in the budget narrative exceed the total project costs in the budget grid.

986,261.00 State the total project cost.

* Provide a brief narrative explanation of the overall budget.

Funds requested from the Straight A Grant Fund total \$986,261.00 as detailed below: SALARIES FOR PROFESSIONAL DEVELOPMENT: \$9,360.00 and RETIREMENT FRINGE BENEFITS FOR PROFESSIONAL DEVELOPMENT: \$1,486.00 for 2 Instructors X 130 hours for curriculum development, training on new equipment and instructor collaboration @ \$36.00 per hour. PURCHASED SERVICES - SUPPORT SERVICES: \$20,000.00 for Staging/Rigging for new equipment. CAPITAL OUTLAY - INSTRUCTION: \$955,415.00 consisting of: COMPUTER NUMERICAL CONTROL: Five axis CNC Mill HAAS VF-2TR, \$102,000.00; Three axis CNC Lathe HAAS ST-10Y, \$72,000.00; CNC Wire EDM, \$85,000.00; CNC Water Jet Cutter, \$40,000.00; HAAS Simulators, (Quantity - 3), \$5,400.00; CNC Tooling, \$50,000.00; and CNC Storage, \$5,000.00. INSPECTION ROOM: Coordinate Measuring Machine, \$60,000.00; Optical Comparator (Miruroyo), \$9,000.00; Granite Surface Plate, \$4,000.00; Gauges, \$5,000.00; and Storage, \$3,000.00. CONVENTIONAL TOOLING: Live Centers, (Quantity - 6), \$3,000; Drill Chucks, (Quantity - 11), \$3,850.00; Collet Chuck, (Quantity - 6), \$6,000.00; 4 Jaw Chuck, (Quantity -6), \$7,500.00; Tool Post, (Quantity - 6), \$9,000.00; 3

Jaw Chuck, (Quantity - 6), \$12,000.00; Conventional Tooling, \$25,000.00; Band Saw, \$18,000.00; Bridgeport Mills, (Quantity - 6), \$132,000.00; and Lathes, (Quantity - 5), \$150,000.00. CONVENTIONAL EQUIPMENT: Drill Press, (Quantity - 2), \$8,600.00; Radial Drill, \$14,000.00; Pedestal Grinders & Stands 8100WD, (Quantity - 3), \$4,920.00; 3 D Scanner, \$3,995.00; Surface Grinder (auto), \$19,000.00; Surface Grinders, (Quantity - 2), \$26,000.00; Digital Read Out (DRO) for Bridgeport, (Quantity - 2), \$4,680.00; Digital Read Out (DRO) for Lathes, (Quantity - 2), \$5,400.00; Tig Welder, \$4,000.00; Stick Welder, (Quantity - 2), \$1,600.00; Mig Welder, \$2,200.00, Modular Storage, \$15,000.00; Student (Tool) Lockers, \$4,000.00; Benches, \$6,000.00; and 3D Dimension Printer, \$29,270.00. NOTE: The current lab space physical renovation for this project is estimated to be \$720,000 for construction and \$187,000 for ancillary costs. The majority of these costs are to be borne by the school district mostly through the Medina County Sales Tax Revenue for Capital Improvements approved by Medina County voters May 7, 2007.

13. Will there be any costs incurred as a result of maintaining and sustaining the project after June 30th of your grant year?

Sustainability costs include any ongoing spending related to the grant project after June 30th of your grant year. Examples of sustainability costs include annual professional development, equipment maintenance, and software license agreements. To every extent possible, rationale for the specific amounts given should be outlined. The costs outlined in the narrative section should be consistent and verified by the financial documentation submitted and explained in the Financial Impact Table. If the project does not have sustainability costs, applicants should explain why.

Yes - If yes, provide a narrative explanation of your sustainability costs as detailed in the Financial Impact Table in the box below.

No - If no, please explain why (i.e. maintenance plan included in purchase price of equipment) in the box below.

Consumables by student population are paid by student fees established annually. Provided within the purchase price are maintenance agreements: Digital Read Out for Bridgeport, Digital Read Out for Lathes, Tig Welder, Stick Welder, and Mig Welder - 5 year maintenance agreement; 3 D printer - 3 year maintenance agreement; CNC Mill, CNC Lathe, HAAS Simulators and Coordinate Measuring Machine - 2 year maintenance agreement.; and Faro Arm and Optical Comparator - 1 year agreement. Our instructors indicate that the machines require relatively no ongoing maintenance.

14. Will there be any expected savings as a result of implementing the project?

Yes

No

Applicants with sustainability costs in question 13 or seeking to achieve significant advancement in spending reductions in the five-year forecast must address this response. Expected savings should match the information provided by the applicant in the Financial Impact Table. All spending reductions must be verifiable, permanent, and credible. Applicants may only respond "No" if the project will not incur any increased costs as a result of maintaining and sustaining the project after June 30th of your grant year. The Governing Board will use the cost savings as a tiebreaker between applications with similar scores during its final selection process. Cost savings will be calculated as the amount of expected cost savings less sustainability costs relative to the project budget.

0.00 If yes, specify the amount of annual expected savings. If no, enter 0.

If yes, provide details on the expected savings (i.e. staff counts and salary/benefits, equipment to be purchased and cost, etc.). If no, please explain

Equipment purchased for the STEM Engineering and Manufacturing Academy will be shared among the current programs as well as utilized by the Adult Education Division of MCJVS. We are not placing a dollar value on this possible savings. If we are awarded the grant, we would save the cost of purchasing this machinery in the future.

15. Provide a brief explanation of how the project is self-sustaining.

All Straight A Fund grant projects must be expenditure neutral. For applications with increased ongoing spending as documented in question 11-14, this spending must be offset by expected savings or reallocation of existing resources. These spending reductions must be verifiable, permanent, and credible. This information must match the information provided in your Financial Impact Table. Projected additional income may not be used to offset increased ongoing spending because additional income is not allowed by statute. Please consider inflationary costs like salaries and maintenance fees when considering whether increased ongoing spending has been offset for at least five years after June 30th of your grant year. For applications without increased ongoing spending as documented in questions 11-14, please demonstrate how you can sustain the project without incurring any increased ongoing costs.

For educational service centers and county boards of developmental disabilities that are members of a consortium, any increased ongoing spending at the educational service center or county board of developmental disabilities may also be offset with the verifiable, permanent, and credible spending reductions of other members of the consortium. This increased ongoing spending must be less than or equal to the sum of the spending reductions for the entire consortium.

Explain in detail how this project will sustain itself for at least five years after June 30th of your grant year.

MCJVS previously had two building trades programs. The carpentry instructor retired and the two programs were combined into one program titled Construction Trades. The lab space previously occupied by the carpentry program will be renovated for the STEM Engineering and Manufacturing Academy. Through retirement we no longer have the carpentry teacher's salary and benefits. No new staff is being hired to run the STEM Academy. The new machines are more energy efficient than the current machines. Any increase in materials needed for instruction is expected to come from student fees. Instructional materials costs are directly related to enrollment in the Academy. The machines used in the program come with warranties and maintenance agreements as part of the purchase price. The instructors report that these machines require virtually no maintenance in the future. These machines are built for industry and the Academy's use and wear on the machines will not be nearly as much as they are designed to handle.

D) IMPLEMENTATION - Timeline, scope of work and contingency planning

16. Please provide a brief description of the team or individuals responsible for the implementation of this project, including other consortium members and/or partners.

This response should include a list of qualifications for the applicant and others associated with the grant. If the application is for a consortium or a partnership, the lead should provide information on its ability to manage the grant in an effective and efficient manner. Include the partner/consortium members' qualifications, skills and experience with innovative project implementation and projects of similar scope.

Enter Implementation Team information by clicking the link below:

[Add Implementation Team](#)

For Questions 17-19 please describe each phase of your project, including its timeline, scope of work, and anticipated barriers to success.

A complete response to these questions will demonstrate specific awareness of the context in which the project will be implemented, the major barriers that need to be overcome and the time it will take to implement the project with fidelity. A strong plan for implementing, communicating and coordinating the project should be outlined, including coordination and communication in and amongst members of the consortium or partnership (if applicable). It is recognized that specific action steps may not be included, but the outline of the major implementation steps should demonstrate a thoughtful plan for achieving the goals of the project. The time line should reflect significant and important milestones in an appropriate and reasonable time frame.

17. Planning - Activities prior to the grant implementation

* Date Range October 2013 - May 2014

* List of scope of work (activities and/or events including project evaluation discussions, communication and coordination among entities).

The Straight A Grant Team for Medina County Career Center meets monthly to refine this application through collaboration. Realizing the scope of the project - it was determined to not apply during the first round of applications but rather plan for the physical modifications to the building to be completed for this project and to complete our research for equipment and curriculum needs. A time-line was prepared in anticipation of applying for the second round of applications. Minutes of meetings are available. 10/2013 - Identified project to develop two STEM Academies - one for Engineering and Manufacturing and one for Health Careers. Communicated grant proposal with superintendent, treasurer, principals, building manager, and instructors to ascertain interest and commitment. Developed time-line. 11/2013 - Identified architect to work on building modifications. Developed project proposal and executive summary. 12/2013 - Instructors discussed the concept for a shared delivery model and use of shared resources. 1/2014 - Identified shared resources/technology/curriculum and future needs were reviewed. 2/2014 - Developed budget information & reviewed proposal with partners. Researched STEM structured schools and career outlook for Northeast Ohio. Identified purchase costs, maintenance agreements, training agreements, vendors. Vendor pricing secured through most current on-line catalogs for Hass Factory Outlet, Method Machine, Tru Cut CNC, Strong Hold, Trosol, MSC Direct, Miller Welding, Baldor, and Baileigh Industrial. 3/2014 - Viewed webinars and realigned proposal. House Bill 342 changes taken into consideration and decision is made to scale back on the overall proposal and focus on STEM Engineering and Manufacturing Academy. Identified Software purchase costs and training agreements with Advance Technology and Next Engine. 4/2014 - Completed proposal with Treasurer. Final review by Team. 5/2014 - Prepare PO's in anticipation of funding.

* Anticipated barriers to successful completion of the planning phase

None anticipated.

18. Implementation - Process to achieve project goals

* Date Range June 2014 - June 2015

* List of scope of work (activities and/or events, including deliverables, project milestones, interim measurements, communication, and coordination).

6/2014 - 6/2015 - Provide monthly update to Board of Education and news releases to media. Ongoing: 7/2014 - 1/2015 - Instructor training on new equipment. 8/2014 - Process Purchase Orders and develop schedule for delivery of equipment. Administrator/Instructor collaboration to develop schedule for STEM Lab and curriculum development. 9/2014 - Begin shared delivery model of teaching with software modules. Ongoing: 10/2014- 12/2014: Complete physical renovations. 12/2014 - 1/2015 - Install new equipment. 1/2015 - Introduce Capstone Project to senior level students. Fully implement STEM Academy during 2nd semester. Ongoing: 1/2015 - 5/2016 - Coordinate promotion of STEM Academy to Medina County sophomores for acceptance and 8th graders for career education information. These activities are completed by Admissions Director, Job Placement Coordinator and Counselors as part of their school-wide responsibilities. Ongoing: 1/2015 - 7/2020 - Monitor Student Achievement and make annual adjustments as determined through quantitative and qualitative data analysis.

* Anticipated barriers to successful completion of the implementation phase.

Anticipated barriers - Developing a schedule of construction to minimize interference with school day activities will be challenging but not insurmountable.

19. Summative Evaluation - Plans to analyze the results of the project

* Date Range May 2015 - June 2020

* List of scope of work (activities and/or events, including quantitative and qualitative benchmarks and other project milestones).

Data available for 2013 - 2014 will set the baseline for comparison with annual data for: Summer Internships - grade 11; Industry Certification Test results - grade 11, 12; Job Placement - grades 12; and Acceptance into College and Apprenticeships - grades 12.

* Anticipated barriers to successful completion of the summative evaluation phase.

Barriers - none anticipated, standard reporting through the Education Management Information System (EMIS). This data will be readily accessible.

20. Describe the expected changes to the instructional and/or organizational practices in your institution.

The response should illustrate the critical instructional and/or organizational changes that will result from implementation of the grant and the impact of these changes. These changes can include permanent changes to current district processes, new processes that will be incorporated or the removal of redundant or duplicative processes. The response may also outline the expected change in behaviors of individuals (changes to classroom practice, collaboration across district boundaries, changes to a typical work day for specific staff members, etc.). The expected changes should be realistic and significant in moving the institution forward.

Please enter your response below:

The primary change to the instructional practices with the STEM Academy is that instruction will be provided as courses as opposed to programs. The Ohio Department of Education has endorsed and promoted this model of instruction. Duplication of efforts by both teachers planning similar modules will be eliminated and the instructor most qualified for each curriculum module will be able to work within the Academy to instruct all students. The spirit of collaboration and teamwork within the Academy will provide for ongoing dialogue among instructors. Through partnership with Automation Tool & Die, Inc., juniors will be eligible for internships and seniors will be eligible for acceptance into an apprenticeship program. The Adult Division of Medina County Career Center will share the technology available in the STEM Academy to meet the ongoing needs for OSHA industrial training to both the high school students and our adult community.

E) SUBSTANTIAL IMPACT AND LASTING VALUE - Impact, evaluation and replication

The responses in this section are focused on the ability to design a method for evaluating the project's capacity for long-term sustainable results. Therefore, the questions focus on the method of defining the problem(s) the project hopes to solve and the measures that will determine if the problem(s) have been solved.

21. Describe the rationale, research or past success that supports the innovative project and its impact on student achievement, spending reduction in the five-year fiscal forecast or utilization of a greater share of resources in the classroom.

The response should provide a concise explanation of items which provide rationale that will support the probability of successfully achieving the goals of the project. Answers may differ based on the various levels of development that are possible. If the proposal is for a new, never before implemented project, the response should provide logical, coherent explanations of the anticipated results based on some past experience or rationale. For projects that have been implemented on a smaller scale or successfully in other organizations, the response should provide the quantifiable results of the other projects. If available, relevant research in support of this particular proposal should also be included.

Please enter your response below.

PAST SUCCESS: The plan to create the STEM Engineering & Manufacturing Academy is based on two similar projects in place at MCJVS. A Visual Media Imaging Academy was developed in 2008 and an Information Technology Academy was completed in 2010. Both of these academies, with no additional staff, have been able to share resources of instructional staff, curriculum, and equipment while increasing student enrollment by 38% and 27% respectively with a 97% passage rate for the most recent Webxam Industry based test. Shared facilities, state-of-the-art equipment and technology continue to be utilized by teachers in preparing students for highly skilled careers and/or post-secondary education. The Academy Model offers collaboration between the programs and develops the 21st Century communication and soft skills essential for today's workforce. MCJVS SEEKS TO BUILD UPON THIS SUCCESS BY CREATING THE STEM ENGINEERING AND MANUFACTURING ACADEMY. RATIONALE: According to John Carey, Chancellor of the Ohio Board of Regents in comments during a recent tour of MCJVS, "I'm very impressed. They're doing things we'd like to replicate across the State. We want to align education with workforce requirements and this place sets a great example of that." Rob Portman, United States Senator, commented on a bi-partisan career and technical education resolution, "This resolution recognizes critical efforts to bridge the gap by building a more competitive, 21st century American workforce." RESEARCH: MCJVS'S vision to create a STEM Engineering & Manufacturing Academy is indicated by the Outlook for STEM Careers reported by the Bureau of Labor Statistics: In 2010, there were 7.6 million STEM workers in the United States, representing about 1 in 18 workers. STEM occupations are projected to grow by 17.0 percent from 2012 to 2018, compared to 9.8 percent growth for non-STEM occupations. The Ohio Office of Workforce Development Bureau of Labor Market Information, "projects a 15.9% increase in Engineering and Technology; Design openings from 2008 - 2018 due to both job growth and retirement."

22. Describe the overall plan to evaluate the impact of the concept, strategy or approaches used in the project.

This plan should include the methodology for measuring all of the project outcomes. Applicants should make sure to outline quantitative approaches to assess progress and measure the overall impact of the project proposal. The response should provide a clear outline of the methods, process, timelines and data requirements for the final analysis of the project's progress, success or failure. The applicant should provide information on how the lessons learned from the project can and will be shared with other education providers in Ohio.

* Include the name and contact information of the person who will be responsible for conducting the evaluation and whether this will be an internal or external evaluation.

Steve Chrisman, Principal and Lead Applicant is responsible for the internal evaluation of the STEM Academy. Quantitative data is collected annually and accessible through the EMIS coordinator. The Qualitative data will be coordinated with the instructors to include both a graduate survey and Senior Capstone Project. Lessons learned will be shared as requested to other education providers in Ohio.

* Include the method by which progress toward short- and long-term objectives will be measured. (This section should include the types of data to be collected, the formative outputs and outcomes and the systems in place to track the project's progress).

QUANTITATIVE STATISTICS in place for analysis include: A) Student Enrollment; B) Testing / Certification - for students completing certification/industry based tests: OSHA - Ohio Safety Health Certification, Webxam Industry Based Testing - Manufacturing, and Project Lead the Way Testing - Engineering; C) Summer Internships; D) Job Placements; and E) Post-Secondary Enrollment. QUALITATIVE INFORMATION

for student achievement will be gathered with a graduate survey and assessed through a Senior Capstone Project to include program-level outcomes such as: A) Ability to apply knowledge of mathematics and science to engineering and manufacturing; B) Ability to collaborate among co-workers between the engineering and manufacturing programs; C) Ability to identify, formulate and solve engineering/manufacturing problems; D) Ability to understand the impact of engineering solutions in an economic environment; E) Ability to use the techniques, skills and engineering tools for manufacturing; and F) Familiarity with college level mathematics and science.

* Include the method, process and/or procedure by which the project will modify or change the project plan if measured progress is insufficient to meet project objectives.

Annually, the data will be analyzed and measures put in place to insure growth in student achievement. Enrollment, summer internships, job placement, and post-secondary enrollment are all guided by our Admissions Director, Job Placement Coordinator and School Counselors. Their dedication to the students and awareness of our community, resources and colleges are integral support services available to all students. Student growth in achievement will be reviewed and if necessary - professional development days will be utilized to concentrate on strategies, resources, and methods to increase success on industry standard certification tests.

23. Describe the substantial value and lasting impact which the project hopes to achieve.

The response should provide specific quantifiable measures of the grant outcomes and how the project will lead to successful attainment of the project goals. Applicants should describe how the program or project will continue after the grant period has expired.

Please enter your response below.

The substantial value and lasting impact this project hopes to achieve is the ability to provide students with STEM education and 21st Century soft skills required to meet the standards of the manufacturing and engineering job market in Medina County and Northeast Ohio. It is anticipated that students will be able to attain through either an apprenticeship or college degree both job satisfaction and commensurate salaries.

24. Describe the specific benchmarks, by goal as answered in question 9, which the project aims to achieve in five years. Include any other anticipated outcomes of the project that you hope to achieve that may not be easily benchmarked.

The applicant should provide details on the quantifiable measures of short- and long- term objectives that will be tracked and the source of benchmark comparative data points. Responses should include specified measurement periods and preliminary success points that will be used to validate successful implementation of the project. If a similar project has been successfully implemented in other districts or schools, identification of these comparable benchmarks should be included.

* Student Achievement

Student enrollment, 25% increase; Testing / Certification - 90% pass rate achievement; Summer Internships - 50% increase; Job Placements - 25% increase; and Post-Secondary Enrollment - 25% increase.

* Spending Reduction in the five-year fiscal forecast

Duplication of purchases due to shared resources will be eliminated. Replacement of antiquated equipment with high efficient equipment will be completed.

* Utilization of a greater share of resources in the classroom

Equipment (new and current) will be completely installed and used throughout the school day commencing with 2nd Semester 2014-2015.

* Implementation of a shared services delivery model

Instructional modules, partnership guest speakers and OSHA training will be delivered under the shared delivery model beginning in the 1st Semester 2014-2015.

* Other Anticipated Outcomes

25. Is this project able to be replicated in other districts in Ohio?

Yes

No

If the applicant selects "Yes" to the first part of the question, the response should provide an explanation of the time and effort it would take to implement the project in another district, as well as any plans to share lessons learned with other districts. To every extent possible, applicants should outline how this project can become part of a model so that other districts across the state can take advantage of the learnings from the proposed innovative project. If there is a plan to increase the scale and scope of the project within the district or consortium, it should be included here.

* Explain your response

Vocational School Districts throughout Ohio utilizing an infusion of funds for this purpose could replicate this project; placing resources into the classroom under a shared delivery model of instruction to increase student achievement. MCJVS will share our planning, research, and project implementation with other schools. Within MCJVS, when future funds become available, the Academy model will be implemented for Health Careers.

By virtue of applying for the Straight A Fund, all applicants agree to participate in the overall evaluation of the Straight A Fund for the duration of the evaluation time frame. The Governing Board of the Straight A Fund reserves the right to conduct an evaluation of the project and request additional information in the form of data, surveys, interviews, focus groups and other related data on behalf of the General Assembly, Governor and other interested parties for an overall evaluation of the Straight A Fund.

PROGRAM ASSURANCES: I agree, on behalf of this applicant, and any or all identified consortium members or partners, that all supporting documents contain information approved by a relevant executive board or its equivalent and to abide by all assurances outlined in the Straight A Assurances (available in the document library section of the CCIP).

We agree, John Streett, Treasurer Medina County Career Center Mike Larson, Superintendent Medina County Career Center

Consortium Contacts

No consortium contacts added yet. Please add a new consortium contact using the form below.

Partnerships

Medina County Joint Vocational School District (062109) - Medina County - 2015 - Straight A Fund - Rev 0 - Straight A Fund

Sections

Partnerships

| First Name | Last Name | Telephone Number | Email Address | Organization Name | IRN | Address | Delete Contact |
|--------------------------------|--------------------|------------------|---------------------------|--|--------|---|----------------|
| Gary | Searle | 330-725-8461 | GSearle@mcjvs.edu | Medina County Joint Vocational School District | 062109 | 1101 W Liberty St, Medina, OH, 44256-1346 | |
| Randy | Bennett | 330-220-6908 | RBennett@AutomationTC.com | Automation Tool & Die, Inc. | | 2867 Nationwide Pkwy, , Brunswick, Ohio, 44212 | |
| Precision Machining Technology | Advisory Committee | 330-725-8461 | FBaluch@mcjvs.edu | Medina County JVSD | | 1101 West Liberty Street, , Medina, Ohio, 44256 | |
| Engineering Technology/Design | Advisory Committee | 330-725-8461 | LMeech@mcjvs.edu | Medina County JVSD | | 1101 West Liberty Street, , Medina, Ohio, 44256 | |

Implementation Team

Medina County Joint Vocational School District (062109) - Medina County - 2015 - Straight A Fund - Rev 0 - Straight A Fund

Sections 

| Implementation Team | | | | | | |
|---------------------|-----------|--|--|---|--|----------------|
| First Name | Last Name | Title | Responsibilities | Qualifications | Prior Relevant Experience | Delete Contact |
| Peggy | Reeves | M.A.Ed., Associate Principal, High School Division | Peggy Reeves is responsible for working with the two STEM Academy instructors on the curriculum, training and collaboration component of the grant. | Peggy Reeves has been employed in this administrative experience since 1998. | Peggy's leadership includes leading teams of instructors in the development of two Academies resulting in shared resources and expertise, the ability to increase student learning opportunities and improved assessment outcomes. | |
| Steven | Chrisman | M.Ed., Principal, High School Division | Steve Chrisman is responsible for overseeing the grant project. He will also work closely with the partners; Automation Tool & Die, Inc., and the Adult Education Division of MCJVS to insure that internship and apprenticeship opportunities are available to the students enrolled in the STEM Engineering & Manufacturing Academy. He is also responsible for coordinating the collection of the quantitative and qualitative data for analysis resulting in recommendations by the Team for future adjustments. | Steve Chrisman has served as Principal of the High School Division of MCJVS from 2010 - present. | Previous administrative experience consists of 4 years at Polaris Career Center. | |
| John | Streett | B.B.A., Treasurer, MCJVS | John Streett will approve all aspects of grant fund expenditures including overseeing the bidding for equipment, and working closely with the Board of Education to provide updates relating to the Straight A Grant Fund. | John has been employed at MCJVS as treasurer since 2001. In this capacity he is responsible for the daily operation of keeping the school district financially healthy. | From 2002-2012, approximately \$4.5 million in programming, technology, security, renovations and infrastructure has been expended. Funding for these projects has come from State and Federal Grants and a Medina County Sales Tax earmarked for capital expenditures. In addition \$750,000+ in Pell Grants for adult education has been administered in the treasurer's office. | |
| Frank | Baluch | Precision Machining Technology Instructor | Frank will be the instructor in the Manufacturing component of the STEM Engineering and Manufacturing Academy. He will be responsible for collaborating closely with the Engineering and Design Instructor, Lorah Meech to insure that the shared delivery model of instruction occurs in regards to curriculum, equipment and lab usage. In addition, the two instructors will develop the Senior Capstone project that will demonstrate student achievement and career/college readiness. | Frank is a State of Ohio Journeyman Toolmaker employed at MCJVS from 2007 to present. | Frank has 34 years as a Toolmaker with Alcoa and has completed an 8,000 hour apprentice toolmaker program. | |

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|-------|-------|--|---|---|---|
| Lorah | Meech | M.S., (Engineering) Engineering Technologies/Design Instructor | Lorah will be the instructor in the Engineering and Design component of the STEM Engineering and Manufacturing Academy. She will be responsible for collaborating closely with the Manufacturing Instructor, Frank Baluch to insure that the shared delivery model of instruction occurs in regards to curriculum, equipment and lab usage. In addition, the two instructors will develop the Senior Capstone project that will demonstrate student achievement and career/college readiness. | Lorah has been employed at MCJVS as an instructor since 2012. | Lorah has been retained as an Engineering Consultant for 6 years and employed as a Design & Product Engineer for Rubermaid for 9 years. |
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