1. **OFF-SITE DELIVERY PROPOSAL**
   FORM OS

OFF-SITE DELIVERY OF AN EXISTING PROGRAM FORM

Sponsoring Institution(s): Moberly Area Community College

Program Title: Industrial Technology with options in Machine Tool, Power Plant Operations, Industrial Maintenance and Industrial Electrical Technician

Degree/Certificate: Associate of Applied Science Degree, Certificate, Certificate of Specialization

Institution Granting Degree: Moberly Area Community College

Delivery Site:

MACC – Columbia Higher Education Center
Parkade Center
601 Business Loop 70 West
Suite 216
Columbia, MO 65201

Mode of Program Delivery: On-site instruction, ITV and web synchronous systems

CIP Classification: 47.0303

Implementation Date: Fall 2013

Cooperative Partners:

AUTHORIZATION

Dr. Evelyn Jorgenson, President	Evelyn E. Jorgenson	April 1, 2013
Name/Title of Institutional Officer	**Signature**	**Date**

Ms. Deanne Fessler	660-263-4110, ext. 11208
Person to Contact for More Information	**Telephone**

(Complete proposal and forms attached)

INDUSTRIAL TECHNOLOGY EXPANSION COMPLETE PROPOSAL

2. NEED

The mission of Moberly Area Community College is to foster excellence in learning by providing open admission to educational programs that are geographically and financially accessible throughout our service region. In order to respond to the changing educational needs of the various communities it serves, MACC pursues its mission by offering educational programs and services that prepare students to fulfill their role in the global community.

One important goal in the College's 2011-2016 strategic plan is to "provide exemplary instructional programs at the postsecondary and adult level," which includes seeking approval to offer existing degrees at off-campus sites as appropriate. Additionally, another goal challenges the College to "maintain and expand efforts to make college attendance financially and geographically accessible throughout the service region".

In spring 2012 several companies in the Columbia area approached the Regional Economic Development Incorporated (REDI) requesting additional training in the industrial technology field. REDI approached MACC for assistance, and after an initial focus group meeting, an advisory committee consisting of representatives from the Columbia Career Center, MACC, Kraft, Quaker (Pepsico), Gates, American Air Filter, Int., and 3M was formed. This group has met monthly since fall 2012 to develop program curriculum and secure facilities and equipment for training purposes. The advisory group is now reaching out to area high schools to recruit students and potentially develop dual-credit articulation. Columbia Area Career Center in particular has already expressed interest in sending a cohort of students to enroll in this program once it has been approved by CBHE to offer at the Columbia site. MACC's ultimate goal is to assist Columbia industry with their need to develop a trained workforce that consists of both currently employed workers and graduating high school students.

By requesting permission to offer the Industrial Technology Associate of Applied Science degree and certificate program in Columbia, MACC will be meeting a clearly defined need within our service region in addition to fulfilling the College's mission and stated goals in the strategic plan. The following narrative will provide additional details regarding the expansion of the Industrial Technology program to the MACC-Columbia Higher Education Center.

A. Student Demand

Student demand for classes in the Industrial Technology program is increasing at the Moberly campus. Because this program is currently not offered at the Columbia site, current students from the Mexico, Columbia and other areas must commute to the Moberly campus to complete their degrees. Considering the cost of fuel and the commuting time, traveling to another campus three to five times per week is a deterrent both to program enrollment and successful program completion. In addition, several companies in Columbia have expressed interest in sending their employees to MACC for additional training, but the employees are unable to do so because of scheduling conflicts and commuting challenges.

Delivering the industrial technology program in Columbia would be a great service to students in the southern part of MACC's service region because in addition to allowing current students to take classes locally, it would strengthen MACC's partnerships with area

industry and encourage increased numbers of non-traditional students to enroll in the program. MACC has also learned that several factories in the Columbia area have closed or will be closing within the next few years, and it is anticipated that workers from those companies will be seeking additional skilled training using the Trade Act Funds funds available to them. Program enrollment on the Main campus is expected to remain stable because approximately 75% of currently enrolled industrial technology majors are from towns that are geographically closer to the Moberly campus and northeast Missouri has a strong industrial base in need of additional skilled workforce training. No limits to program enrollment are anticipated.

Form SE included below projects enrollment for the next five years in the proposed Industrial Technology degree program expansion to be offered at MACC's Columbia off-campus site. These are conservative projections based on current enrollment in the Industrial Technology program on the Main Campus and projected growth of the program once it is available at the Columbia site. Growing Interest in the program indicates larger numbers are likely. Additionally, projected growth is based on the number of A+ students expected to impact enrollment at the Columbia site. The high schools in Columbia have gained A+ designation and MACC is the only postsecondary institution in the northeast Missouri region where students can use their A+ benefits.

FORM SE

Student Enrollment Projections (Columbia)

Year	1	2	3	4	5
Full-time	4	5	6	7	8
Part-time	6	8	10	12	14
Total	10	13	16	19	22

B. Market Demand

In the Industrial Technology program at MACC, students may choose the Machine Tool, Power Plant Operations, Mechatronics, or Industrial Electrical Technician options. Employment growth in these fields ranges from "average" to "faster than average". The *2012 Occupational Outlook Handbook* published by the Bureau of Labor Statistics projects that job opportunities for Industrial Machinery Mechanics and Maintenance Workers are expected to grow by 19% between 2010-2020. Additionally, job opportunities for electricians are expected to grow by 23% creating many employment opportunities for MACC Industrial Technology graduates.

Continued growth in this field is also predicted by other independent business sources; the 2008-2018 Missouri's Hot Jobs projects that in the next decade, 1,371 industrial machinery mechanic and 6,010 general maintenance and repair positions will become available. Additionally, according to a real time labor market summary compiled by the Missouri Research and Information Center (MERIC) in fall 2012, there were 1,093

job openings in the Advanced Manufacturing Industry. Over half of those positions were of a type requiring technical and skilled labor.

Legislation involving A+ Schools is an additional compelling factor in market demand at the community college level in the state. Graduates from A+ designated schools could more easily take advantage of the opportunity to earn a college degree free of charge if community college services and programs were more accessible in Boone county. The high schools in Columbia are designated as A+ schools. In 2012, over 200 students with A+ funds graduated from Columbia's Rockbridge and Hickman High Schools alone. Other schools in close proximity to Columbia are also designated as A+, including the districts in Ashland, Hallsville, and Centralia. Currently, MACC is the only institution in Columbia that is A+ eligible.

C. Societal Need

Imperatives for Change: A Coordinated Plan for the Missouri Department of Higher Education envisions a system of postsecondary education that is of the highest quality, distinguished by a coordinated, balanced, and cost-effective system. That system will also include a range of vocational, academic, and professional programs that are affordable and accessible to all citizens and differentiated by institutional missions. MACC and the state's community colleges are in a good position to assist the state in its *Imperatives for Change* goals.

Efforts to expand services to the Columbia area will help meet the *Imperatives for Change* objectives of increasing the percentage of Missouri residents who possess a postsecondary credential and demonstrating improvement in meeting the workforce needs of Missouri employers. The expansion of the program to include the MACC-Columbia site will address the needs not only of recent high school graduates interested in industrial technology professions, but also the working adult who seeks further credentials to maintain employment or those who seek new employment opportunities due to current negative economic conditions.

Offering the Industrial Technology degree, certificate, and short-term certificate programs in Columbia will also provide increased statewide economic benefits and reduced social costs. A 2011 study conducted by Economic Modeling Specialists, Inc. found that as many as 93% of Missouri community college graduates stay in the state after graduation and become contributors to their local economy. In 2009-2010, community college graduates added over $517 million to Missouri's Gross State product (GSP) while reducing social costs by approximately 28.3 million. These cost savings are measured through reduced crime rates, increased productivity, and reduced expenditures for public assistance programs and unemployment benefits.

The improved geographic and financial access to higher education achieved through MACC's active presence at off-campus sites is in response to the state and national priority for accessibility to higher education for all citizens. Greater access to higher education combined with the economic benefits that MACC graduates bring to their communities are compelling reasons to increase MACC's current presence by offering additional degree programs.

D. Methodology

The following resources provided information and data used to determine market demand and societal need:

- Bureau of Labor Statistics, *Occupational Outlook Handbook 2012-2013*
- Missouri Economic Research and Information Center, *Missouri Hot Jobs 2008-2018*
- Economic Modeling Specialists, Inc., *Economic Contributions of Missouri Community College Associations' Member Colleges (2011)*
- Missouri Economic Research and Information Center, *Statewide Real Time Labor Market Summary Advanced Manufacturing Industry (2012)*

3. DUPLICATION AND COLLABORATION

As the designated community college service provider for 16 northeast Missouri counties including Boone, the AAS degree in industrial technology is not currently available through any other institution in the area. Only one other institution near MACC's service region offers an Industrial Technology degree – State Fair Community College in Sedalia, MO. State Fair is outside MACC's service region and is located more than 60 miles from Columbia, making access difficult for working students.

MACC's Industrial Technology programs are intended to prepare program completers for direct entry into the job market. The curriculum has been developed to provide graduates with up-to-date, industry-specific job skills that can be used immediately. Program emphasis areas provide additional specialized training specific to niches within the broad industrial technology field, again allowing graduates direct entry into the job market.

4. FINANCIAL PROJECTIONS

Forms FP attached to this document project expenditures and revenues for the Associate of Applied Science degree program in Industrial Technology at the Columbia site for a five-year period beginning FY 2014.

5. PROGRAM CHARACTERISTICS AND PERFORMANCE GOALS

A. Student Preparation

The open-door admission policy at Moberly Area Community College allows students admission in college programs based on aptitude, interest, abilities, and specific program entrance requirements. No special preparation or qualifications which exceed regular college admissions policies will be required for entry into the industrial technology program. It is anticipated that the program will serve both traditional and non-traditional college students who reside in Columbia and the surrounding area. Additionally, MACC offers a full sequence of developmental coursework to assist students with deficient math and English skills. These courses, designed to increase student success, are available to all students at the Columbia site.

B. Faculty Characteristics

MACC employs faculty who have earned degrees from accredited institutions. These degrees must also be the degree appropriate to the level of instruction offered by the institution and program. Faculty members who teach in the Industrial Technology program typically have, at minimum, an Associate of Applied Science degree in their specific discipline plus extensive work experience in the industrial technology field.

MACC strongly supports professional growth, service and leadership activities among faculty members and participation in these activities is an integral part of the faculty evaluation process. All full-time faculty members have the same professional growth opportunities, including membership in professional associations, travel to state and national conferences, participation in the MACC staff development program, and attendance at orientation/topical workshops at the beginning of each semester. Adjunct faculty members are invited to participate in all faculty workshops as well as sessions geared specifically to their instructional needs. All new faculty members are provided orientation sessions prior to their first semester of teaching at the College.

A combination of traditional delivery methods and web-synchronous classroom instruction and laboratory instruction methodologies are incorporated in delivering the courses in this program. In the web-synchronous courses, students have the option to travel to campus and join in the face-to-face classroom or join the same class virtually in a real-time, web-synchronous instructional environment. These teaching methodologies and pedagogies have been utilized with great success. These technologies are also being extensively utilized in other AAS programs.

All instructors delivering classes via web-synchronous technology are required to attend three technology-oriented training sessions and one instructional methodology training session prior to teaching in this environment. Faculty and students have many additional resources available to them including on-line help documents, additional live and recorded training sessions, an on-line and live help-desk, and traditional face-to-face assistance and services. The combination of real-time delivery with additional college service resources provides equivalent educational opportunities to those students joining class at a distance as those students joining in the face-to-face environment.

Full-time faculty maintain a minimum of ten office hours per week. Part-time faculty who teach nine hours or more maintain a minimum of three office hours per week. To increase accessibility, students may meet with instructors in either their physical offices at each campus site or in their virtual offices via Blackboard Collaborate. Students also have access to the campus e-mail system and an internet portal, which allow additional means of communication with faculty.

A full-time Industrial Technology faculty member will be hired prior to fall 2013. This instructor will teach 60% of the industrial technology-specific courses in the program with the remaining percentage to be taught by adjuncts. Approximately 21.5% of general education coursework at the Columbia site will be taught by full-time instructors with the remaining percentage taught by adjuncts.

C. Enrollment and Graduation Projections

It is anticipated that the Industrial Technology AAS degree program will enroll 15 FTEs per year by the end of five years at the Columbia site. The following table shows the number of expected graduates based on projected student enrollment for the Columbia site.

Columbia Student Enrollment Projections

Year	1	2	3	4	5
Full-time	4	5	6	7	8
Part-time	6	8	10	12	14
Total	10	13	16	19	22
FTE (PT students = .5)	7	9	11	13	15
Graduates	0	4	5	10	12

Based on enrollment projections, it is estimated that five students in Columbia will earn the AAS degree in the third year of implementation and that the number of graduates will increase to twelve through year five. MACC expects completion rates of students at the Columbia site to reflect completion rates of full-time students enrolled on the main campus. Based on the significant enrollment growth currently experienced at the Columbia site, it is anticipated that the number of AAS completers will increase each year.

D. Student and Program Outcomes

At the present time, MACC administers the WorkKeys examination to AAS completers. According to ACT, the WorkKeys is a job skills assessment system measuring real-world skills. Industrial Technology graduates currently take the Applied Math and Reading for Information subtests. Beginning in spring 2013, Industrial Technology graduates will also begin taking the Locating Information subtest. Students who score above the appropriate level all three subtests will also be awarded an additional National Career Readiness Certificate by ACT Testing Services, a credential that demonstrates achievement and a high level of workplace employability skills.

In May 2012, 100% of Industrial Technology completers met the career standard identified with the WorkKeys test. It is anticipated that the performance of students at the Columbia site will not differ significantly from the performance of students who are enrolled on the main campus.

Students are also assessed on the achievement of competencies specific to program objectives and industry-desired traits. All program graduates are assessed for mastery of Program Essential Skills, developed by MACC Industrial Technology faculty with input from the program advisory committee. The goal is that program completers master 80% or more of the essential skills designated for the industrial technology program. In May 2012, 85% of program completers achieved this standard.

Graduates of MACC career and technical programs are highly successful in finding employment. Approximately 90% of Industrial Technology graduates find employment within one year of graduation. Students at the Columbia site will be provided the same services by the MACC placement office. It is expected that placement rates for these graduates will be very similar to the rates produced by students attending at the Moberly campus.

The most recent placement survey of Industrial technology graduates indicated that MACC graduates earn an average starting wage of $11.11/hour. This is comparable with starting salaries for other career and technical graduates at MACC. Based on consultation with industry partners, it is anticipated that industrial technology graduates with an AAS degree in the Columbia area will earn an average starting wage of $18.25/hour. Statewide salaries for graduates in industrial technology fields range from $35,422 for entry-level positions to $62,467 for experienced workers in the field.

E. Program Accreditation

Moberly Area Community College is accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools.

F. Alumni and Employer Survey

The MACC placement office conducts follow-up surveys of all career and technical education completers. The survey is designed to gauge graduates' level of satisfaction with MACC services and level of preparation for the workplace. The survey can be completed online or mailed to the main campus. The same process has been implemented for graduates of AAS degree programs at the Columbia site. In the most recent survey, graduates rated the quality of their instructional experience 3.0 on a 4-point scale, with 4 being considered excellent.

MACC has participated in alumni and employer surveys sponsored by the CBHE. Students at all MACC campuses will be included as additional survey tools are implemented.

6. QUALITY ASSURANCE FOR OFF-SITE PROGRAM

A. General Oversight

Three key administrators and one faculty member are responsible for oversight of AAS degree programs at MACC's Columbia site.

Jo Fey	Dean of Career and Technical Education
To be determined	Instructor, Mechatronics
Michele McCall	Dean of Off-Campus Programs/Instructional Technology
Amy Frey	Director, MACC - Columbia Higher Education Center

Deans Fey and McCall provide oversight for course scheduling, program offerings, instructional quality, and faculty management. They are also chiefly responsible for reporting to the Vice President for Instruction and the President of MACC regarding the status of off-campus programs. Daily operation and oversight of the Industrial

Technology program will be managed by the Mechatronics faculty member and operations of the Columbia site will be managed by Ms. Frey.

B. Faculty Qualifications

All staff are subject to MACC's customary hiring, orientation, evaluation, and development standards. Additionally, MACC requires the same educational credentials of all faculty members. Ongoing instructional technology training is provided to faculty and staff to stay abreast of current technological advances. Additionally, instructors teaching web-synchronous virtual classes must first complete an intensive training program preparing them to address challenges and dynamics found in the virtual classroom.

C. Support Services

A variety of support services are available to all MACC students. The following positions provide direct support services at the Columbia site:

Site Director
Assistant Director/Evening Supervisor
Resource Center/Technical Support Staff
Academic Advisors
Clerical Support Staff
Financial Aid/Business Office Specialist
ADA/Special Needs Coordinator

These personnel administer placement testing, conduct registration and enrollment, collect fees, provide faculty support and bookstore services, deliver financial aid counseling and academic advisement, assist with transfers and job placement, and disseminate informational materials. Support services are also provided for students with disabilities to assist them with program access needs and academic accommodations.

Computer labs are installed and equipped with the appropriate hardware, software, peripherals and instructional aids to assist instructional technology students at the Columbia site. A Resource Center holds basic library references and is equipped for Internet access to enable electronic information search and retrieval. Such access enables students to search the library resources of colleges and universities on the Internet, to communicate through e-mail with the librarian and other personnel at MACC, and to access the MACC library database. MACC subscribes to MOBIUS, permitting access to all academic library holdings at public two-year and four-year educational institutions in the state. MACC students also have access to the myMACC portal, which provides secure web access to pertinent information including College calendars, announcements, class lists, online registration, grades, financial information, and online resources.

MACC has worked to develop systems to provide timely delivery of borrowed materials from the main campus library to off-campus sites. A courier delivers materials to off-campus sites. MACC strives to provide students with multiple avenues of information that are up-to-date and easily accessible.

Improvement of support services is an ongoing priority at MACC and input is solicited annually through the graduate placement survey administered by the Director of Career and Placement Services. Satisfaction scores will continue to be monitored by the college and program adjustments made as necessary based on student feedback.