



**OFF-SITE DELIVERY OF AN EXISTING PROGRAM FORM**

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**Sponsoring Institution (s):** North Central Missouri College  
 Name of Institution (Campus or off-campus residential center in the case of multi-campus institutions).

**Program Title:** Industrial Energy Systems Technology/Industrial Maintenance/Industrial Maintenance Skills/Manufacturing Skills  
**Degree/Certificate:** AAS/C1/C0/CO  
**Institution Granting Degree:** North Central Missouri College  
**Delivery Site(s):** 6503 North Belt Highway, Country Club, Missouri  
**Mode of Program Delivery:** On-Ground/On-line/Hybrid

**Geographic Location of Student Access:** 6503 North Belt Highway, Country Club, Missouri

**CIP Classification:** 15.0503 (Please provide CIP code)  
**Implementation Date:** Fall 2017  
 Semester and Year  
**Cooperative Partners:** [Click here to enter text.](#)

**AUTHORIZATION**

Sharon Weiser/Interim Vice President for Academic Affairs Sharon Weiser June 21, 2017

Name/Title of Institutional Officer	Signature	Date
Sharon Weiser	660-357-6300	
Person to Contact for More Information	Telephone	



**STUDENT ENROLLMENT PROJECTIONS**

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Year	1	2	3	4	5
Full Time	4	6	10	10	12
Part Time	10	12	18	18	18
Total	14	18	28	28	30

Please provide a rationale regarding how student enrollment projections were calculated:

The student enrollment projections are very conservative. We have met with employers in the area who have indicated a high level of interest in these programs with a willingness to underwrite the costs or reimburse the students' tuition. The St. Joseph Chamber of Commerce has come to use on behalf of their area employers seeking these programs in response to employer needs. We had a similar situation in Maryville, Missouri where they reached out to us to offer similar programs last spring. We currently have 24 students in a cohort at that site with an additional cohort of 24 students beginning in the fall. The regional area of this requested site has a much larger manufacturing, industrial, and population base than Maryville. In addition, we are limited to what we can offer in Maryville. The Maryville employers have indicated they would bring students for additional training to the Andrew County site since it would be much closer than the Trenton site.

Provide a **rationale** for proposing this program, including **evidence of market demand and societal need supported by research**:

We have been offering this program at our Trenton site for several years along with on-site training at area businesses. In spring, 2017 we began offering the program at our Maryville site with success regarding employer interest and student enrollment. The spring cohort of 24 students (max enrollment due to classroom size) had their books and fees paid by their

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employers. This fall a second cohort of 24 students will be enrolled. NCMC has been meeting with area employers who have indicated great interest in this program in the St. Joseph area. According to the Realtime Pathway Summary, there were a total of 1,170 job postings in the Transportation & Logistics and Advanced Manufacturing Pathway Occupations in the Northwest region during the last 6 months. Average salaries listed included a Maintenance & Reliability Technician at \$37,577.00 and an Industrial Maintenance Technician at \$45,402.00. According to the Occupational Outlook Handbook, employment of industrial machinery mechanics, machinery maintenance workers, and millwrights is projected to grow 16 percent from 2014 to 2024, much faster than the average for all occupations. efficient will drive demand for these workers. Job prospects for qualified applicants should be good. The average salary is \$49,100.00

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**PROGRAM CHARACTERISTICS AND PERFORMANCE GOALS**

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Institution Name: North Central Missouri College

Program Name: Industrial & Energy Systems Technology

Date:06/21/2017

(Although all of the following guidelines may not be applicable to the proposed program, please carefully consider the elements in each area and respond as completely as possible in the format below. Quantification of performance goals should be included wherever possible.)

1. Student Preparation

- Any special admissions procedures or student qualifications required for this program which exceed regular university admissions, standards, e.g., ACT score, completion of core curriculum, portfolio, personal interview, etc. Please note if no special preparation will be required. **No special preparation is required**
- Characteristics of a specific population to be served, if applicable.**NA**

2. Faculty Characteristics

- Any special requirements (degree status, training, etc.) for assignment of teaching for this degree/certificate.**NA**
- Estimated percentage of credit hours that will be assigned to full time faculty. Please use the term "full time faculty" (and not FTE) in your descriptions here. **50%**
- Expectations for professional activities, special student contact, teaching/learning innovation. **Continued faculty development/Online teaching/ Blackboard Collaborate**

3. Enrollment Projections

- Student Full Time Equivalent majoring in program by the end of five years.**18**
- Percent of full time and part time enrollment by the end of five years. **40% full-time students/60% part-time students**

4. Student and Program Outcomes

- Number of graduates per annum at three and five years after implementation. **3 years = 20 graduates/ 5 years = 45 graduates**
- Special skills specific to the program.**NA**
- Proportion of students who will achieve licensing, certification, or registration.**NA**
- Performance on national and/or local assessments, e.g., percent of students scoring above the 50<sup>th</sup> percentile on normed tests; percent of students achieving minimal cut-scores on criterion-referenced tests. Include expected results on assessments of general education and on exit assessments in a particular discipline as well as the name of any nationally recognized assessments used.**NA**

- Placement rates in related fields, in other field, unemployed. **75%**
- Transfer rates, continuous study. **25%**

5. Program Accreditation

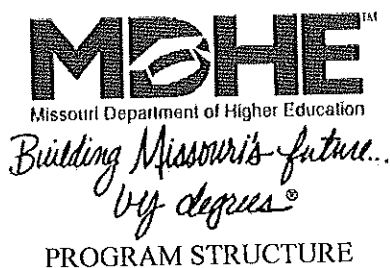
- Institutional plans for accreditation, if applicable, including accrediting agency and timeline. If there are no plans to seek specialized accreditation, please provide reasons. **NA**

6. Alumni and Employer Survey

- Expected satisfaction rates for alumni, including timing and method of surveys. **90%**
- Expected satisfaction rates for employers, including timing and method of surveys. **90%**

7. Institutional Characteristics

North Central Missouri College has been offering this degree for several years at the main campus, at the Maryville site, and as on-site business training. Our faculty members meet the Higher Learning Commission faculty guidelines. We have a very active Director of Corporate & Business Relations working with workforce development needs in our region. The Director has worked with many regional businesses to create onsite and campus training. He is very innovative and instrumental in our Credit for Prior Learning initiatives.



- A. Total credits required for graduation: 63
  - B. Residency requirements, if any: NA
  - C. General education: Total credits: 15
- Courses (specific courses OR distribution area and credits):

Course Number	Credits	Course Title
MT110/MF104	3	Intermediate Algebra or Applied Technical Math
HI103/PL216	3	American History or National Government
BT160	3	Microcomputer Applications
EN101	3	English I
SP175	3	Speech Communication

D. Major requirements: Total credits: 48

Course Number	Credits	Course Title
MF122	3	Basic Electricity I
MF128	3	Motor Controls
MF141	3	Programmable Logic Controllers
MF120	3	Intro to Electricity & Electronics
MF150	3	Principles of Safety
MF145	3	Basic Fluid Power
MF220	3	AutoCAD I
MF126	3	Basic Electricity II
AG132	4	Agriculture Mechanics
BT240	1	Employment Strategies
MF155	3	Principles of Maintenance Awareness
MF235	3	Industrial Robotics
MF260	3	Maintenance Management
MF271	3	Manufacturing Technology Internship
MF160	3	Principles of Quality Practices
PS108	4	Introduction to Physics

E. Free elective credits:

0

(Sum of C, D, and E should equal A.)

F. Requirements for thesis, internship or other capstone experience:

3

G. Any unique features such as interdepartmental cooperation:

NA



**PROGRAM STRUCTURE**

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A. Total credits required for graduation: 25

B. Residency requirements, if any: NA

C. General education: Total credits: 6

Courses (specific courses OR distribution area and credits):

Course Number	Credits	Course Title
SP175	3	Speech Communication
MT110/MF104	3	Intermediate Algebra or Applied Technical Math

D. Major requirements: Total credits: 19

Course Number	Credits	Course Title
MF120	3	Intro to Electricity & Electronics
MF150	3	Principles of Safety
MF145	3	Basic Fluid Power
BT240	1	Employment Strategies
MF122	3	Basic Electricity I
MF128	3	Motor Controls
MF141	3	Programmable Logic Controllers



E. Free elective credits:

0

(Sum of C, D, and E should equal A.)

F. Requirements for thesis, internship or other capstone experience:

NA

G. Any unique features such as interdepartmental cooperation:

NA



A. Total credits required for graduation: 18

B. Residency requirements, if any: NA

C. General education: Total credits: 0

Courses (specific courses OR distribution area and credits):

Course Number	Credits	Course Title

D. Major requirements: Total credits: 18

Course Number	Credits	Course Title
MF122	3	Basic Electricity
MF128	3	Motor Controls
MF141	3	Programmable Logic Controllers
MF145	3	Basic Fluid Power
MF150	3	Principles of Safety
MF155	3	Principles of Maintenance Awareness

E. Free elective credits:

0

(Sum of C, D, and E should equal A.)

F. Requirements for thesis, internship or other capstone experience:

NA

G. Any unique features such as interdepartmental cooperation:

NA



PROGRAM STRUCTURE

A. Total credits required for graduation: 16

B. Residency requirements, if any: NA

C. General education: Total credits: 3

Courses (specific courses OR distribution area and credits):

Course Number	Credits	Course Title
MF104/MT110	3	Applied Technical Math or Intermediate Algebra

D. Major requirements: Total credits: 13

Course Number	Credits	Course Title
BT240	1	Employment Strategies
MF165	3	Principles of Manufacturing & Production
MF150	3	Principles of Safety
MF155	3	Principles of Maintenance Awareness
MF160	3	Principles of Quality Practices

E. Free elective credits:

0

(Sum of C, D, and E should equal A.)

F. Requirements for thesis, internship or other capstone experience:

NA

G. Any unique features such as interdepartmental cooperation:

NA

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Form PS – Program Structure