Missouri Department of Higher Education

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NEW PROGRAM PROPOSAL FORM

Sponsoring Institution(s): Ranken Technical College

Program Title: Advanced Manufacturing Technology

Degree/Certificate: Associate of Technology

Options: Click here to enter text.

Delivery Site(s): 755 Parr Road, Wentzville, MO 63385

CIP Classification: 48.0501

*CIP code can be cross-referenced with programs offered in your region on MDHE's program inventory highered.mo.gov/ProgramInventory/search.jsp

Implementation Date: August 2013

Cooperative Partners: Click here to enter text.

*If this is a collaborative program, form CL must be included with this proposal

AUTHORIZATION:

Donald J. Pohl/Executive Vice President		3-21-2016
Name/Title of Institutional Officer	Signature	Date
June Poletti	314-286-4817	
Person to Contact for More Information	Telephone	

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STUDENT ENROLLMENT PROJECTIONS

Year	1	2	3	4	5
Full Time	17	27	26	27	30
Part Time					
Total	17	27	26	27	30

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

Years 1-3 are based on current enrollment. We project to maintain this rate of enrollment.

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

Manufacturers are becoming increasingly dependent upon the use of high-tech equipment that involves multiple, integrated systems. It is critical that companies are able to recruit and employee individuals who know how to operate, trouble shoot and maintain this high-tech equipment. This program is designed to prepare students for employment in a team-oriented design, production, quality and maintenance environment. Annual openings in the state of Missouri are approximately 200 with a rate of growth of 10%.

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PROGRAM STRUCTURE

A. Total credits required for graduation: 76

B. Residency requirements, if any: _____

C. General education: Total credits: 24

Courses (specific courses OR distribution area and credits):

Course Number	Credits	Course Title
ENG1101	3	College Composition I
ENG2102	3	College Composition II
COM1105	3	Oral Communications
SOC1206 or PSY1206	3	Principles of Sociology OR Introduction to Psychology
MTH1110	3	Elementary Algebra
MTH1111	3	Intermediate Algebra
MNG1204	3	Introduction to Business & Management
BUS1000	3	Career Success Skills

D. Major requirements: Total credits: 52

Course Number	Credits	Course Title
MFG1000	7	Machining Principles
MFG1005	6	MFG Internship I
MFG2000	7	Manufacturing Process
MFG2005	6	MFG Internship III
MFG1100	7	Quality Practices
MFG1105	6	MFG Internship II
MFG2020	7	Advanced Programming & Fixture Design
MFG2015	6	MFG Internship IV

E. Free elective credits:
none
(Sum of C, D, and E should equal A.)

F. Requirements for thesis, internship or other capstone experience:
none

G. Any unique features such as interdepartmental cooperation:
none

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PROGRAM CHARACTERISTICS AND PERFORMANCE GOALS

Institution Name Ranken Technical College
Program Name Advanced Manufacturing Technology
Date 3/21/2016

(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 will be required. Students must complete an application; submit a copy of their high school diploma, final high school transcript or GED certificate; take the Compass Placement Test for Reading, Math and Writing or submit ACT scores in Reading (16 or higher), Math (17 or higher) and composition (7 or higher); pay the $95 non-refundable registration fee.

- Characteristics of a specific population to be served, if applicable.
  None

2. Faculty Characteristics

- Any special requirements (degree status, training, etc.) for assignment of teaching for this degree/certificate.
  • Associate's degree required; bachelor's degree preferred. • Comprehensive knowledge including 3 years or more of CNC machining experience required. • G&M code programming and CAD/CAM, Gibbs CAM, Mazatrol are preferred. • Okuma, Mazak, and HAAS controller experience a plus. • 5 Axis and GD & T experience would be a plus.

- 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.
  Each full time faculty member teaches 13 credit hours per semester.

- Expectations for professional activities, special student contact, teaching/learning innovation.

Faculty are expected to travel to area schools and industry to promote the program. Work closely with program advisory committee to maintain and enhance curriculum and assess program outcomes.

3. Enrollment Projections

- Student FTE majoring in program by the end of five years.
  We expect to have 30 students enrolled in various levels of completion during year five of the program.

- Percent of full time and part time enrollment by the end of five years.
  100% of the students are enrolled full time

4. Student and Program Outcomes

- Number of graduates per annum at three and five years after implementation.
  Year 3: 15 graduates Year 5: 20 graduates

- Special skills specific to the program.
  Graduates earning the associate of technology or associate of science will be able to: •Interpret blueprints to determine and prioritize procedures for part manufacturing using lean manufacturing processes. •Operate various manual and computer numerical control (CNC) machines and use measuring equipment. •Analyze, record, and report the machining process and inspection results using various types of statistical process controls (SPC) with a focus on quality.

- Proportion of students who will achieve licensing, certification, or registration.
  No specific license or national certification will be earned with this program

- Performance on national and/or local assessments, e.g., percent of students scoring above the 50th 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.
  There is not a nationally recognized assessment test at this time.

- Placement rates in related fields, in other fields, unemployed.
  90% of students are placed within 6 months of graduation

- Transfer rates, continuous study.

Graduates of this program will begin working upon completion of program and not expected to transfer or continue study.

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 a rationale.**
  Ranken Technical College is accredited by The Higher Learning Commission.

6. Alumni and Employer Survey

- Expected satisfaction rates for alumni, *including timing and method of surveys.*
  Alumni are invited to serve on departmental advisory boards that provide advise and information to keep faculty up to date on recent trends in industry.

- Expected satisfaction rates for employers, including timing and method of surveys.
  Employers who hire graduates are invited to serve on departmental advisory boards that provide advice and information to keep programs up-to-date on recent trends in their industry. These vital contributions ensure that Ranken's curriculum stays on the leading edge of the industries we serve.

7. Institutional Characteristics

- Characteristics demonstrating why your institution is particularly well-equipped to support the program.

Through a unique combination of classroom education and hands-on instruction, each student is fully educated to be successful in his or her technical field of choice. Our education formula is founded on success and career development. The formula for a student's success is based upon three equal components: technical education, general education and work ethic.