

Contact: Diana Gonzalez

**REQUEST FOR A PROGRAM NAME CHANGE AT THE UNIVERSITY OF NORTHERN IOWA:  
FROM BACHELOR OF SCIENCE PROGRAM IN MANUFACTURING TECHNOLOGY TO  
BACHELOR OF SCIENCE PROGRAM IN MANUFACTURING ENGINEERING TECHNOLOGY**

**Action Requested:** Consider recommending approval of the request by the University of Northern Iowa to change the name of the Bachelor of Science Program in Manufacturing Technology to the Bachelor of Science Program in Manufacturing Engineering Technology in the College of Humanities, Arts, and Sciences.

**Executive Summary:** The proposed program name change will better articulate the curricular nature of the program. This request has been reviewed by the Board Office and the Council of Provosts and is recommended for approval. This request addresses the Board of Regents Strategic Plan priority to “ensure access to education and student success.”

**Background:**

◇ Description of program. The Manufacturing Technology Program prepares students for careers in the application of modern technology to the design and manufacturing of products, consumer goods and services. Students can choose from technical concentrations in automation and production, computer-aided drafting and design, and metal casting. The automation and production concentration gives special emphasis to the content areas of manufacturing processes, production management and computer-aided manufacturing.

Graduates are prepared for entry-level employment in several functional areas of manufacturing, including: process research and development, manufacturing engineering, production planning and control, materials testing, quality control, production supervision, inventory control and industrial engineering. The employment market is targeted primarily for supervisory and production managerial positions associated with manufacturing.

Numerous opportunities exist for graduates with an interest in the area of computing-integrated manufacturing. With a concentration in computer-aided drafting and design, students receive training in engineering analysis, product research and development, as well as mathematics, science, computer programming, manufacturing management, industrial materials and processes.

The metal casting program is one of 30 programs across the nation that have been recognized for excellence in cast metals education by the Foundry Educational Foundation. Students learn from respected professionals in the metal casting field. Program activities range from conventional green sand molding to near net shape solidification processing.

◇ Reason for proposed name change. The proposed name change will reflect the trend to redefine the curriculum structure for the baccalaureate program. Currently, the term manufacturing technology is associated with a two-year college degree whereas the integration of manufacturing and production management skills requires a four-year experiential learning approach. A recent web search clearly demonstrates that most four-year institutions, particularly UNI's peer institutions with a similar curriculum, have migrated toward the manufacturing engineering technology or similar program title.

Human resource managers and production engineers do not understand that the manufacturing technology curriculum includes an understanding of manufacturing processes; integration of production utilization; and training in labor management. After reviewing manufacturing engineering technology degree descriptions from peer institutions, the definition, marketing, and curriculum are identical to UNI's manufacturing technology program. Several students have had internships at large multi-national original equipment manufacturing (OEM) companies but have been excluded from permanent employment because their degree did not have the term "engineering" associate with it as do other four-year programs, although the candidates were deemed qualified.

Furthermore, international students do not recognize manufacturing technology as a relevant academic program because the current name does not denote the curriculum they expect. Although the current program name does not include engineering, the present curriculum structure meets international requirements and expectations by the manufacturing community. Confusion in the program name has led to difficulty in attracting and recruiting international students.

- ◇ Comparable name at other institutions. There are no other programs in the state that have the same or similar program title. Two of UNI's peer institutions do not have engineering, industrial, or technology programs. Indiana State University has a program with an identical name. The other seven peer institutions have titles that are similar, including engineering technology or manufacturing systems engineering.
- ◇ Consistency with accreditation requirements. During the last accreditation by the Association of Technology, Management, and Applied Engineering in 2014, the manufacturing faculty asked if the present curriculum would satisfy the requirements for manufacturing engineering technology accreditation. The review team indicated UNI's program was well suited for the requirements of manufacturing engineering technology and did not foresee any accreditation obstacles regarding a program name change.
- ◇ Effect on program configuration. The number of credit hours and the curricular requirements will remain the same. Future configuration changes would follow the accreditation cycle.
- ◇ Effect on students. There will be no immediate effect on students. The curriculum structure is recognized by industry as meeting the preparatory skills and abilities for a manufacturing production manager or other similar positions. The proposed name will more accurately reflect students' academic preparation and ability to compete for positions requiring a manufacturing degree. Upon approval of the name change, students may request a diploma name change without additional course requirements.
- ◇ Effect on resources. There are no anticipated costs resulting from changing the program name. Recruitment and program descriptions will remain relatively the same. Most of the recruitment and marketing materials exist in electronic form.
- ◇ Proposed name consistent with College mission. The education objectives for the manufacturing technology program are to prepare students to analyze manufacturing systems and to choose and implement optimal solutions based on sound engineering principles in a collaborative manner that is communicated to stakeholders.

One of the primary goals in the College's strategic plan is to "develop and maintain excellence in departments, programs, and centers within the College." UNI's vision is to "be nationally known for innovative education, preparing students for success in a rapidly changing, globally competitive, and culturally diverse world." The proposed name will better articulate the curricular nature of the program and will provide students the strong preparation and technical skills needed to compete in a rapidly changing world.

- ◇ Workforce needs. According to UNI's Career Services and departmental surveys, approximately 75% of manufacturing technology graduates have remained in Iowa. The program has an annual enrollment of 100 students and an average number of 25 graduates per year. The typical average salary for graduates is \$52,000. During the past 10 years, there has been 98% placement.
  
- ◇ Date of implementation. The proposed program name change will become effective upon approval by the Board of Regents and will be included in the University's General Catalog. The anticipated implementation date is Spring 2017.