Ohio | Department of Higher Education

Mike DeWine, Governor
Randy Gardner, Chancellor

CHANGE REQUEST:
TITLE AND CURRICULUM MODIFICATIONS

Date of submission: *to come*

Name of institution: Kent State University

Approved title: Master of Technology degree, Technology major

Proposed new title: Master of Engineering Technology degree, Engineering Technology major

Implementation date: Fall 2020

Date that the request received final approval from the appropriate institutional committee:
Kent State University Board of Trustees approved the revisions on *date to come*

Primary institutional contact for the request:

Name: Cynthia R. Stillings
Title: Dean of Graduate Studies (Interim)
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Educator Preparation Programs:

Leads to licensure: ☐ Yes ☒ No
Leads to endorsement: ☐ Yes ☒ No

Explain the rationale for title and curricular changes:

Kent State has offered a master's degree in technology for nearly 50 years, first as a Master of Arts degree and then (since 2000) as the Master of Technology degree. The shift from "technology," which is broad and not well defined, to "engineering technology" with four concentrations, will align the program with the current language of the discipline and better facilitate focused studies for students while retaining the overall engineering technology discipline. The Master of Technology degree seems unique to Kent State; the name is not well understood and difficult for prospective students and employers to identify easily its objectives and instruction.

Internationally, the Master of Technology degree has experienced enrollment loss recently due to a lack of specificity. The proposed curricular revisions will allow for more specialization while retaining the academic core.

These changes also will allow Kent State to apply the program for ABET accreditation.

Is the Classification of Instructional Programs (CIP) code changing? If yes, explain why.

The CIP code for Kent State's Technology major is *15.000 Engineering Technology, General*, description below. This CIP code will not change with the new program name and curriculum.

> *A program that generally prepares individuals to apply basic engineering principles and technical skills in support of engineers engaged in a wide variety of projects. Includes instruction in various engineering support functions for research, production, and operations, and applications to specific engineering specialties.*

Describe how the title and curricular changes will affect students in the current program.

Students admitted to the Master of Technology degree will not be affected by these changes because courses in their curriculum will continue to be offered. Students may update their catalog to the new program name and curriculum, but are not required to do so to graduate. In spring 2019 (15th day census), there were 38 students enrolled in the degree program.

Describe any faculty, administrative or support service changes occurring along with the title and curriculum changes.

All courses in the revised curriculum, with the exception of a new culminating requirement, are existing and taught regularly. Therefore, there is no need to change existing resources.

Provide evidence that the appropriate accreditation agencies been informed of the proposed change (if applicable).

Kent State will apply for ABET accreditation after the proposed changes have been implemented.

Describe how the effectiveness of the new curriculum will be monitored over time.

The efficacy of the new curriculum will be monitored over time, in a similar manner as in the past, which is through careful monitoring of student satisfaction inventories, securing regular feedback from faculty as courses are taught, examination of student assessment to ensure high-quality work, follow-up data on graduates and the rates at which they secure full-time employment. The College of Aeronautics and Engineering will monitor enrollment, re-connect with global partners and reach-out domestically in Northeast Ohio to be sure graduates are being employed.

Submit a comparison of the currently authorized curriculum and the proposed curriculum.

Synopsis between current and proposed curriculum:

- Core requirements (12 credit hours) are unchanged
- A capstone requirement (3 credit hours) is added as the program's culminating requirement
- Technology electives (21 credit hours) are decreased to one course (3 credit hours)
- Students will declare a transcriptable concentration (12 credit hours), from the following:
    - Computer Engineering Technology
    - Engineering Management Technology
    - Mechanical Engineering Technology
    - Quality Engineering

Master of Technology Degree: Previously Authorized Curriculum	
Major Requirements	**12**
TECH 60000 Project Management in a Technological Environment (3)	
TECH 60001 Quantitative Methods in Technology (3)	
TECH 60078 Research Methods in Technology (3)	
TECH 67010 Ethics, Technology and the Environment (3)	
Technology (TECH) Electives *Students are encouraged to choose a specialization within these elective choices. Recommendations in the past included aeronautics, mechatronics, quality systems, applied technology, sustainable systems, radiation processing, manufacturing systems, mechanical engineering, construction management, computer engineering technology, computer and electronics technology and engineering and technology management.*	**21**
Minimum Total Credit Hours:	**33**

Master of Engineering Technology Degree: Proposed Curriculum	
Major Requirements	**12**
TECH 60000 Project Management in a Technological Environment (3)	
TECH 60001 Quantitative Methods in Technology (3)	
TECH 60078 Research Methods in Technology (3)	
TECH 67010 Ethics, Technology and the Environment (3)	
Technology (TECH) Elective	**3**
Culminating Requirement	**3**
ENGR 61099 Engineering Technology Capstone (3) ***NEW COURSE***	
Concentration Requirement (students select one)	**12**
Computer Engineering Technology	
TECH 53222 Computer Hardware Engineering and Architecture (3)	
TECH 56312 Wireless Network and Telecommunications Systems (3)	
TECH 56350 Network Management and Design Technology (3)	
TECH 63010 Computer Hardware (3)	
Engineering Management Technology	
TECH 60003 Six-Sigma: Tools and Applications for Technology Management (3)	
TECH 63050 TRIZ: Theory of Inventive Problem-Solving (3)	
TECH 65700 Applied Reliability Engineering (3)	
TECH 65800 Burn-In/Stress-Testing for Reliability (3)	
Mechanical Engineering Technology	
TECH 53700 Computer Integrated Manufacturing (3)	
TECH 63041 Motors and Controllers (3)	
TECH 63045 Mechatronics (3)	
TECH 63100 Computer-Aided Design (3)	
Quality Engineering	
TECH 60020 Quality Standards (3)	
TECH 67220 Life Cycle Design I (3)	
TECH 67221 Life Cycle Design II (3)	
TECH 65500 Quality Systems and Industrial Productivity (3)	
Minimum Total Credit Hours:	**30**

Course Descriptions: Technology (TECH)

Describe changes to the following because of the request (if applicable):

- **Total number of credit hours for program completion**
  Total credit hours for the program have decreased, from 33 to 30.

- **Time to complete program**
  Time to completion is unchanged at two years.

The person listed below verifies that this request has received the necessary institutional approvals and that the above information is truthful and accurate.

Cynthia R. Stillings
Dean, Graduate Studies (Interim) and Associate Dean for Graduate Education, College of the Arts
Kent State University