


RESOLUTION
concerning
LICENSURE AND ACCREDITATION
for a
BACHELOR OF SCIENCE
in
MECHANICAL ENGINEERING TECHNOLOGY
at
CENTRAL CONNECTICUT STATE UNIVERSITY

July 23, 1993

RESOLVED, That under the authority granted to the Board of Trustees of Connecticut State University in Chapter 185b, Sections, 10a-87 and 10a-149 of the Connecticut General Statutes, the President of Connecticut State University is authorized to seek licensure and accreditation from the Connecticut Board of Governors for Higher Education for a Bachelor of Science (B.S) in Mechanical Engineering Technology to be presented by Central Connecticut State University.

A Certified True Copy:



Dallas K. Beal
President



Central Connecticut State University

**Application for Accreditation and Licensure
of a Program of Higher Education
Leading to the Bachelor of Science in Engineering Technology
with a Major in Mechanical Engineering Technology**

**Prepared by
The School of Technology**

June 1993

**Submitted to the
Board of Governors for Higher Education
Hartford, Connecticut**

Central Connecticut State University

Application for Licensure and Accreditation, Bachelor of Science Degree in Engineering Technology with a major in Mechanical Engineering Technology

SUMMARY

The goal of the proposed program in Mechanical Engineering Technology is to provide full-time and part-time students with preparation for a career as an engineering technologist involved with the design, development, analysis, testing and control of mechanical systems.

Graduates of this program will be qualified for entry level positions as engineering technologists, prepared to work with engineers in areas of research and development, analysis testing, and/or design of products and processes. In addition to entry level positions, graduates of the program will have the knowledge and background needed to continue their education via graduate study and, with experience, obtain a professional engineering license.

The Mechanical Engineering Technology program will attract prospective students from the ranks of high school graduates, graduates of the Connecticut Community-Technical Colleges, and transfer students from the proposed Connecticut College of Technology Pathway program.

The program has been designed to insure articulation from pre-technology and pre-engineering programs and to take advantage of the opportunity for the community-technical colleges to deliver the first two years of courses for entry into the Mechanical Engineering Technology degree program at Central Connecticut State University.

The accreditation criteria as specified by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC/ABET) provided the standard for the design of the MET program. Associate degree MET programs at the Connecticut Community-Technical Colleges were appropriately reviewed with regard to transfer articulation.

Central Connecticut State University
Application for Licensure and Accreditation, Bachelor of Science
Degree in Engineering Technology with a major in Mechanical
Engineering Technology

This degree program integrates the aspects of energy conversion, mechanism control, heat and mass transfer, machine dynamics and design with computer design and analysis to prepare engineering support personnel to assist in the design of machinery and instrumentation for industrial, transportation and utility applications. The mechanical engineering technologist makes significant contributions in supporting engineering design, testing, production, research and development operations in a wide variety of industrial, aerospace and government organizations.

CURRICULUM

Major: (68 credits required)

ET 150	Introduction to Engineering Technology	3
ET 260	CAD/CAM/CIM	3
ET 351	Applied Mechanics I Statics	3
ET 352	Applied mechanics II Dynamics/Hydraulics	3
ET 357	Strength of Materials	3
ET 358	Applied Thermodynamics	3
ET 367	Machine Design	3
ET 440	Geometric Dimension & Tolerance	3
ET 456	Materials Analysis	3
ET 462	Manufacturing Process Planning & Estimating	3
ET 466	Design for Manufacture	3
ET 469	CAD/CAE Solid Mechanics	3
ET 497	Engineering Cost Analysis	3
ET 498	Senior Project (capstone)	3
TC 113	Introduction to Information Processing	2
TC 121	Technical Drawing	3
TC 213	Electrical Energy	3
TC 216	Materials Processing	3
TC 303	Electro-Mechanical Converters	3
TC 321	Computer Aided Drafting	3
TC 324	Fluid Power Systems	3
TC 334	Mechanisms for Automation	3
Math 126	Applied Calculus II	3

Central Connecticut State University
Application for Licensure and Accreditation, Bachelor of Science
Degree in Engineering Technology with a major in Mechanical
Engineering Technology

Directed Electives in Major (6 credits required)

ET 300 Human Factors Engineering
 ET 461 Manufacturing Plastics & Composites
 IT 359 Plant Layout
 IT 364 Statistical Process Control
 IT 410 Industrial Safety
 IT 432 Worker/Supervisory Relations
 IT 458 Productivity Improvement
 IT 480 Robotics

General Education: (62 credits required)

Modes of Thought

1. Philosophical Elective	3
2. Mathematical/Logical	
Stat 104 Elementary Statistics	3
Math 121 Pre-calculus	3
Math 125 Applied Calculus I	3
CS 213 Applications of Computer Programming	3
3. Literary Elective	3
4. Artistic Elective	3
5. Historical Elective	3
6. Behavioral Elective	3
7. Social Scientific Elective	3
8. Natural Scientific	
Chem 121 General Chemistry I	4
Phys 121 General Physics I	4
Phys 122 General Physics II	4

Areas

A. Communication Skills	
Comm 140 Public Speaking	3
Eng 110 Freshman Composition	3
Eng 403 Technical Writing	3
B. Foreign Language/International Elective	3
C. Supplemental	
(completed with 6 credits from major)	
D. Physical Electives	<u>2</u>

Total credits in MET program 130

**Central Connecticut State University
Application for Licensure and Accreditation, Bachelor of Science
Degree in Engineering Technology with a major in Mechanical
Engineering Technology**

Need for the Mechanical Engineering Technology Program.

Based on 1990 engineering college enrollment data, more than 17,000 students were enrolled in MET programs throughout the nation. Within New England, New York and New Jersey there were approximately 4560 students enrolled in these programs. Massachusetts had 975 students enrolled in MET Bachelor Degree programs. Connecticut, without a Bachelor MET program, had only 421 students enrolled in this discipline and these students were in Associate Degree programs.

The Engineering Technology department at CCSU annually receives numerous inquiries regarding the availability of a B.S. Mechanical Engineering Technology program.

"Planning for the Future - An overview of population, employment, education and training. An interagency report by the Connecticut Department of Labor" reports that there currently exists a demand for Mechanical Engineering Technologists which is predicted to increase into the twenty-first century.

The data in this 1990 Connecticut Department of Labor report, combined with the number of students enrolled in existing associate degree programs at the Connecticut Community-Technical Colleges and the continued inquiries about the B.S. program clearly documents a need for Central Connecticut's MET program.

Central Connecticut State University's Engineering Technology Industrial Advisory Committee recognizes the importance of the Mechanical Engineering Technology program and the potential resource the graduates of this program will be to the local industry. Connecticut's industry has an established track record of employing Associate MET graduates and has emphasized the importance for these professionals to continue their academic education. Based on industry's record of hiring mechanical engineering technologists and its support for the proposed MET program, the University is confident that these graduates will find professional employment opportunities in Connecticut.