Advanced Manufacturing Processes Certificate

Degree Type
Certificate

This program is not currently accepting new students.

NHTI's Advanced Manufacturing Processes certificate program provides you with a basic knowledge of machining operations using traditional machine tools and basic CNC programming/machine operations. Courses include shop mathematics and engineering drawing interpretation. The lab component offers hands-on activities in the machine shop and the CNC lab. This program is financial aid-eligible.

Do you have questions? Contact Dennis Tappin at dtappin@ccsnh.edu.

Career Information

A recent study of N.H. employers identified a shortage of technician-level manufacturing production workers. As the aging workforce retires, there will be a skills gap NHTI students can fill to support the growth of advanced manufacturing in N.H. as well as the overall health of the state economy.

Over the past two decades, N.H.'s manufacturing economy has been moving from manual mill work toward automated, smart manufacturing. The technology infusion and high productivity demand a safe and sustainable manufacturing workforce. This requires individuals with professionalism, applied science, technology, math, and engineering skills, as well as knowledge of manufacturing principles – all of which students receive at NHTI.

Students who complete this program can enter into the following professions (not an inclusive list): CNC operator, CNC programmer, and manufacturing technician.

Curriculum

Item #	Title	Lecture Hours	Lab Hours	Credits
MATH120C	Quantitative Reasoning	4	0	4
MCET105C	Engineering Design	4	0	4
MFET111C	Manufacturing and Materials Processing	3	3	4
MFET220C	Manufacturing Processes and Machine Tools	3	3	4
MFET241C	Computer-Integrated Manufacturing	3	3	4
	Subtotal Credits	**17**	**9**	**20**
	Total Credits			**20**

Additional Information

Program Learning Outcomes

Successfully completing the certificate has the following outcomes in terms of skills:

- Basic shop math skills necessary to solve manufacturing-related technical problems
- The ability to read and interpret engineering drawings typically used in the manufacturing industry
- An understanding of machining operations and the various machines used to accomplish these processes
- CNC machine operation including tool offsets, work offsets, and G-code programming fundamentals
- A working knowledge of materials, including cutting tools and workpiece materials, and their interactions