

MECHATRONICS (CERTIFICATE)

Manufacturing and Construction

Program website (<https://www.harpercollege.edu/academics/manufacturing/electronics-engineering/mechatronics-certificate.php>)

Program Overview

This 24 credit-hour certificate program is designed to prepare students for careers in the field of industrial electronics and facilities maintenance, and other related technology maintenance areas. The curriculum is tailored to provide advanced-level career training in the least amount of time. Emphasis is placed on equipment operation, application, installation and servicing. Courses specific to instruction include: basic electricity and electronics, commercial wiring and codes, and industrial control systems as they pertain to robotics or automated systems. Topics within these courses involve practical electrical concepts and measurements, basic industrial maintenance, fluid power, AC and DC motors, variable frequency drives, optics and sensors, and programmable logic controllers.

Students completing this program may find employment as electrical technicians, electricians, and facilities or plant maintenance technicians and supervisors.

Students may also continue their education by pursuing an Associate in Applied Science degree. Students considering this option are encouraged to meet with the Program Coordinator and an academic advisor prior to beginning the program, and also when planning their schedule each semester.

Program Requirements

Code	Title	Hours
Required		
ELT 110	Introductory Electronics	4
ELT 120	Introductory Industrial Electronics Maintenance	2
ELT 135	Optics and Sensors	2
ELT 140	Introduction to Programmable Logic Controllers	2
ELT 143	Commercial Wiring	2
ELT 144	AC and DC Motors	2
ELT 145	Variable Frequency Drives	2
ELT 215	Industrial Control Systems	4
ELT 240	Advanced Programmable Logic Controllers	4
Total Hours		24

Gainful Employment

Harper College provides Gainful Employment information to comply with the U.S. Department of Education.