

Introduction to Mechatronics | eLearning Course

Automation Operations - WXAU204-XX01XEN-E1

Objective 3: Define a Flexible Manufacturing System and Give an Application

Advantage of a Flexible Manufacturing System



One advantage of an FMS is cost reduction. There are three reasons for the increased savings.

- One set of equipment can produce multiple products, so less equipment is needed to produce multiple products.
- Setup time is reduced because the system can be reprogrammed to change products instead of being physically retooled.
- Small batch runs of each product can be produced because product changes can be done by reprogramming, so inventory costs are less.

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eLearning Course: MXAU204

This introduction to mechatronics eLearning course (MXAU204) covers the basics of automation operations and basic component adjustments.

Interactive eLearning

In-Depth eLearning Curriculum Connected to Real-World Skills

Amatrol's eLearning curriculum is unique in that it thoughtfully combines in-depth theoretical knowledge with practical, hands-on skills. This powerful combination of knowledge and skills solidifies understanding and creates a strong foundation for pursuing more advanced skills. Amatrol's eLearning integrates various types of learning methods to create an engaging, effective learning experience. Amatrol's multimedia eLearning curriculum includes text with voiceovers, videos, 3D animations, pictures, and interactive activities, quizzes, and self-reviews.

For example, the eLearning course covers important topics, such as:

Automation Operations

In this segment, learners begin with an introduction to mechatronics, then study pick and place automation systems, flexible manufacturing systems, and automated manufacturing processes. The course then moves into control system concepts and covers basic sequencing control systems and the types of manual and automatic discrete input and output devices. The next topic, mechatronics safety, includes operator safety rules and electrical and pneumatic lockout/tagout systems. Finally, the segment covers machine operator functions by explaining the role of a modern automated machine operators, the function of a basic operator panel, stop function operation, and automated machine operation.

Free Learning Management System (LMS)

Amatrol eLearning is easy-to-use for both students and instructors. Its web-based interface is simple to navigate and available on any WebGL-compatible Internet browser. Instructors love Amatrol eLearning for its simple, yet sophisticated Learning Management System (LMS). The LMS allows instructors to create custom courses, monitor student participation, track course progress, assess knowledge levels prior to a course, and test knowledge levels after completion. Learners appreciate the fact that they can start and stop as needed, moving through each

Amatrol course at their own pace. If a self-review reveals that they didn't understand a particular topic as well as they thought they did, they can revisit it before moving on.

Additional Info

Requires:

- Computer (see [Computer Requirements](#))

Options:

- Amatrol SkillTrace Software (94-ST1)
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Address

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