

# Principles of Advanced Manufacturing eLearning | Interactive Multimedia

Advanced Manufacturing - WXAM101-XX01XEN-E2

Objective 1: Define Advanced Manufacturing and Provide Some Examples

Introduction to Advanced Manufacturing

Advanced manufacturing invents and creates the products people need and want. It also designs and creates solutions for a variety of problems.

Some products that have resulted from using advanced manufacturing techniques include:

- Implantable medical devices
- Fuel efficient automobiles to improve air quality
- Pharmaceuticals for healthier lives

The diagram illustrates the concept of advanced manufacturing. At the center is a circular icon representing a factory. Two red arrows point from this central icon to the word "Products" on the left and "Solutions" on the right. From "Products", three red arrows point to three specific examples: "Implantable Medical Devices" (top), "Pharmaceuticals" (left, showing three pills), and "Fuel-Efficient Automobiles" (right, showing a small blue car). The "Implantable Medical Devices" example shows two long, thin, metallic rods with a small circular component at the end.

AMATROL

Page 3 of 106

## eLearning Course: MXAM101

Principles of advanced manufacturing eLearning introduces advanced manufacturing through study of the technologies, processes, performance objectives, and personnel employed in modern manufacturing. Includes examination of computer technologies, such as CNC, PLC, automation, and software. The learner learns how to calculate critical performance objectives, as well as common physical plant layouts and the typical organization of manufacturing personnel and their responsibilities.

## In-Depth Basic Mathematics Curriculum

### What is Advanced Manufacturing?

Advanced manufacturing uses new technologies and refined methods to increase efficiency and productivity in the manufacturing process. This improves the competitiveness of industry products. Advanced manufacturing is based on traditional and historical techniques of manufacturing but improves upon these processes.

Advanced manufacturing invents and creates the products people need and want. It also designs and creates solutions for a variety of problems. Some products that have resulted from using advanced manufacturing techniques includes:

- Implantable medical devices
- Fuel efficient automobiles to improve air quality
- Pharmaceuticals for healthier lives

These technologies and process allow manufacturers to make a multitude of products that are reliable, affordable, and readily available. As a result, for every product it creates, advanced manufacturing ensures efficiency,

productivity, and quality.

## **Interactive eLearning with Learning Management System**

---

### **Highly-Interactive Multimedia Format Appeals to All Learning Styles**

Amatrol's basic mathematics eLearning course features interactive eLearning curriculum that 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.

### **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)

---

#### **Address**

**Amatrol  
2400 Centennial Blvd  
Jeffersonville, IN 47130**

#### **Contacts**

**email: [contact@amatrol.com](mailto:contact@amatrol.com)  
phone: (800) 264 8285**