

HVAC High School eLearning Program



Learning Topics:

Mechanical Systems

Pneumatics

Hydraulics

Electrical

Measurement Tools

Mathematics

Machine Tools

Print Reading

Mechanical Fabrication

Thermal Science

Fluid Systems

Surveying

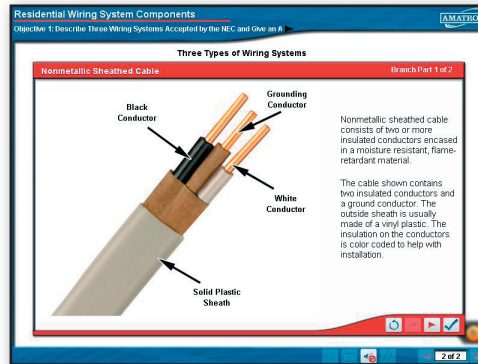
Motors

Industrial Wiring

Workplace Effectiveness

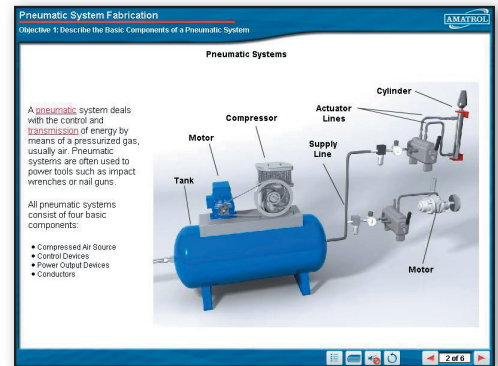
Electrical

As one of the world's most widely used power sources, electrical energy is vital and knowledge of its concepts, applications, and the many components used to harness and transmit it can lead to many fulfilling careers. Various electrical courses will provide key skills including electrical fabrication, industrial wiring, power and distribution, motor control, and motor control timers and counters. Students interested in these courses might pursue a career in electrical engineering.



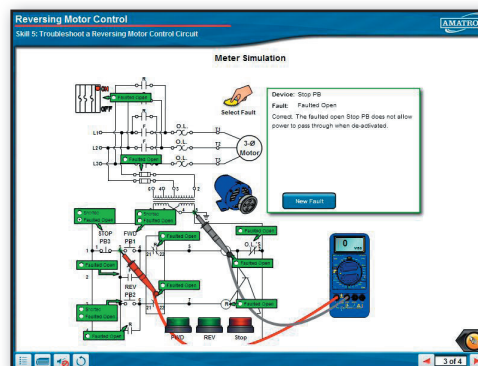
Mechanical

Within these courses, students develop a firm understanding of basic tools that they might use on a daily basis. This knowledge will help to reduce injuries, lower tool breakage costs, and lead to fewer product quality issues. Courses cover topics such as bolts, wrenches, pliers, torque wrenches, and portable power tools to show how to install and check connections, test fittings, and work with a broad array of common mechanical assembly components. These courses are important for any student thinking about a career in any field that utilizes mechanical fabrication, including the HVAC field.



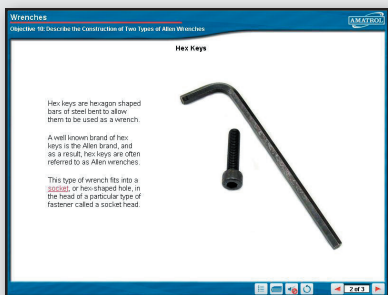
Motor Control

Possessing an understanding of the basic operation, functions, and safety procedures for AC electric motors used in industrial, commercial, and residential applications is highly marketable knowledge. Within the motor control courses in this program, students learn about AC electric motor installation, design, troubleshooting, braking methods, schematics, and electronic counters and timers. Students with an aptitude for these courses could enter careers dealing with electric motor design, repair, installation, and assembly.



HVAC

High School eLearning Program



All Amatrol eLearning programs for high school include core courses in mechanical, electrical, and industrial technology. These standard courses include: Basic Electricity, Pneumatics, and Hydraulics; Measurement; Mechanisms; Manufacturing Processes; Electrical Control; Print Reading; Mathematics; Trigonometry; Communication Skills; Conflict Resolution; and Working in Groups. Students will gain valuable knowledge from these courses that can be applied across all areas of our economy.

Amatrol HVAC High School eLearning Program Courses

Course Title	Est. Hours	Functional Software Req.	Course #
AC/DC Electrical	24	-	W-VTB227
Basic Electrical Machines	16	-	W-B862
Basic Hydraulics	20	-	W-VTB831
Basic Pneumatics	20	-	W-VTB780
Communication Skills	2	-	PD101
Conflict Resolution	2	-	PD102
Electric Counters	2	-	W-17405
Electrical Fabrication 1	6	-	W-12204
Electrical Power Distribution	10	-	W-17471
Electrical Relay Control	12	-	W-VTB703
Environmental Applications	8	-	W-11605
Fluid Systems 2	10	-	W-11607
Industrial Electrical Wiring	6	-	W-17451
Machine Tools 1	12	-	W-VTB701
Mathematics 1	2	-	MA101
Measurement Tools	12	-	W-VTB725
Measurement Tools 2	6	-	W-B726
Mechanical Fabrication 1	8	-	W-19004
Mechanical Systems	12	-	W-VTB728
Motor Control	40	-	W-17401
Motor Control w/Braking	2	-	W-17402
Print Reading 1	8	-	W-12207
Thermal Science	8	-	W-11604
Trigonometry 1	2	-	MA304
Working in Groups	2	-	PD103

