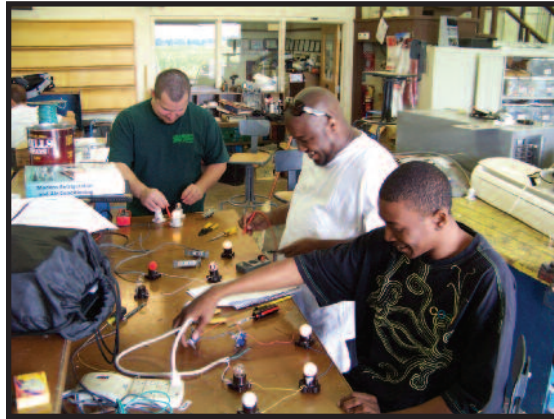


**Technical Certificate
Energy Control Technology**

Course		Credit Hour
ENG 1003	Freshman English I	3
ENG 1013	Freshman English II	3
MATH 1003	Intermediate Algebra (or higher)	3
Computer Fundamentals Elective		3
Social Science Elective		3
ECT 1123	Basic Electrical Circuits	3
ECT 1133	Basic Electrical Circuits Lab	3
ECT 1144	Intro to Air Conditioning System	4
ECT 1213	Split Systems	3
ECT 1223	Split Systems Lab	3
ECT 1234	Major Appliances	4
ECT 1243	HVACR Code Class	3
ECT 1313	EPA Certification	3
ECT 1314	Residential Heat Pump System	4
Designated Electives:		2

Minimum Required Credit Hours (38)

"ASUN: It's Closer Than You Think"



Technical Center - Marked Tree

**33500 Hwy 63 East
Marked Tree, AR 72365
870-358-2117 ph
870-355-4117 fx
www.asun.edu**

Register Online at www.asun.edu



Technical Center - Marked Tree

"A Great Place to Start!"

**Technical
Certificate
Energy Control
Technology**



"Our Business Is You"

Technical Certificate Energy Control Technology

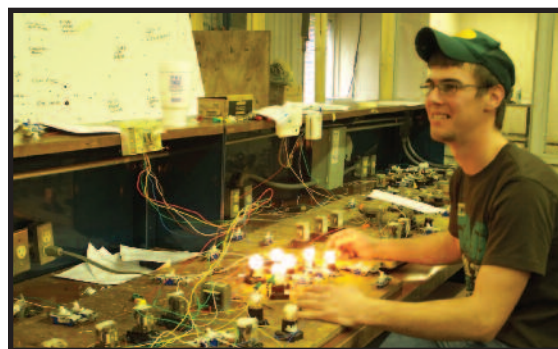
Upon earning a technical certificate Energy Control Technology, individuals are prepared to apply technical knowledge and skills to repair, install, service and maintain the operating condition of heating, air conditioning, and refrigeration systems. The program includes instruction in diagnostic techniques, the use of testing equipment and the principles of mechanics, electricity and systems. Repair and installation of residential and commercial heating and cooling systems is a primary focus of the program. Graduates from the Energy Control Technology program may locate employment in residential, commercial, and industrial heating and air conditioning, industrial maintenance, residential and commercial wiring.

The technical certificate in Energy Control Technology is for individuals who want specialized training and to pursue employment at that time. By completing a Technical Certificate, a student can better prepare for additional college courses and enhance the possibilities for success in the workplace.

A Brief Description of the Program's Technical Courses

ECT 1123 Basic Electrical Circuits

This course will allow students to identify basic types of electrical circuits and controls. Students should be able to identify, discuss and differentiate between standard electrical diagrams and ladder diagrams. Students will study safe working practices around electrical circuits and controls.



ECT 1133 Basic Electrical Circuits Lab

The practical application will include the construction, operation and testing of selected circuits using a variety of test equipment. Students will demonstrate knowledge of proper safety, wiring, tool usage and meter usage while working on their projects.

ECT 1144 Introduction to Air Conditioning Systems

This course will include the study of room type air conditioning units along with their application, circuits, controls refrigerant cycles and functions. Recovery, recycling procedures and code requirements will also be covered. This course also includes service, repair, electrical wiring, installation and testing of both the electrical and mechanical systems and their controls.

ECT 1213 Split Systems

This course will include the study of gas furnaces, electric air handlers and air conditioning systems along with application and types. Electrical and mechanical systems will be covered in detail. Proper electrical, gas, state health codes and plumbing codes will also be discussed.

ECT 1223 Split Systems Lab

This course will include the practical installation practices of gas furnaces, electric air handlers and air conditioning systems along with application and types. Electrical and mechanical systems will be covered in detail. Proper electrical, gas, state health codes and plumbing codes will also be demonstrated.

ECT 1234 Major Appliances

This course will include the study of major appliance installation and operation. Service, repair and troubleshooting methods will be covered. Safety procedures and use of special tools and equipment will also be studied. Practical application will include machine installation and operation checks, service, repair and troubleshooting methods. Replacement of electrical and mechanical parts and components will also be practiced.

ECT 1243 HVACR Code Class

This course will help enhance students understanding of the Arkansas Mechanical Code. The course will help guide students through the rules, regulations, and state health codes concerning the proper installation of residential and commercial mechanical systems. This course will also guide students through the proper installation regulations concerning supply and return air ductwork. This course will enhance students understanding of materials covered by the Arkansas HVACR Contractors Test.

ECT 1313 EPA Certification

This course is designed to prepare students for the certification test, and contains the information a student needs to take the test. This course will cover the latest available information in maintaining, service, repair, or disposing of appliances that contain regulated refrigerants.

ECT 1314 Residential Heat Pump Systems

The course will include the study of residential heat pumps along with their application and operation. The practical application will include the electrical wiring installation, service, repair and operation of residential type heat pump systems. Dual fuel applications will also be covered.

