FUTURA CAREER INSTITUTE

HAIR DESIGN / BARBER

COSMETOLOGY

FULL SPECIALIST

AIR CONDITIONING REFRIGERATION TECHNICIAN

ELECTRICAL TECHNICIAN

NAIL TECHNOLOGY

4512 W 12th Avenue Hialeah, Florida 33012

Telephone: 305-825-7660

Fax: 305-825-7661

CATALOG

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WWW.FUTURACAREERINSTITUTE.NET

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Licensed by:

The Commission for Independent Education located at 325 W Gaines Sreet, Suite 1414, Tallahassee, Florida 32399-0400. Telephone Number 1-888-224-6684.

Accredited by:

The Council on Occupational Eduaction (COE) located at 7840 Roswell Road, Building 300, Suite 325, Atlanta, GA 30350. Toll Free Number 1-800-917-2081, and recognized by the U.S. Department of Education under Title IV program.

ELECTRIAL TECHNICIAN
720 HOURS/51 CREDITS

(Include 180 course prep hours)

Objective

This Electrician Technician program is designed to provide students with the basic skills and knowledge necessary to obtain entry-level employment in the electrical field for residential and commercial projects. The program includes theoretical ad hands-on courses for the installation of residential and commercial projects.

Course Description

The school covers in the Electrical Technician Program a variety of tasks and duties associated with the field of electricity. The teaching methods used are theories and lecture, and a supervised laboratory.

Requirements

Must be 17 years of age and have a high school diploma, or GED.

PROGRAM INFORMATION

Completion Time: 20 hours a week = 36 weeks. Maximum Time Frame = 54 weeks

Tuition and Fees

Tuition	$ 8600.00
Registration Fee	100.00
Books/Supplies	Included
Total	**$ 8700.00**

PROGRAM DESCRIPTION

ET001 Principles and Applications of Electricity

(6credits lecture, 1 credit lab= 80 clock hours)

At the end of this chapter the student will have learned the principles and application of electrical circuits such as electrical symbols, following schematics on real circuits, parts of an electrical installation, motors, transformers, control circuits, light fixtures type and uses. The course also includes a review in electrical basic concepts, OHM's law application, rules of safety, and code requirements. Students practice troubleshooting burned equipment grounded or with wrong resistance, as well as the use of electrical instruments.

ET002 Electrical Motors and Transformers

(4 credits lecture, 2 credit lab= 80 clock hours)

At the end of this chapter the student will have learned the general principles and operation of electrical motors and transformers. Electrical motors competencies include induction motors and the hermetic motor, applications, starting methods (single phase), permanent split capacitor, capacitor start (capacitor and induction start run), split phase, fan motors types with variable speed, overcurrent protection, determining the Common (C), Run (R), and Star (S) in motors. Transformers competencies include uses, grounding, calculations, overcurrent protection and NEC requirements. The course also includes a review in electrical basic concepts, OHM's law application, rules of safety, and code requirements.

ET003 Basic Calculations for Electricians

(2 credits lecture, 3 credit lab= 80 clock hours)

At the end of this chapter the student will have learned basic electrical calculations and installation. Calculations competencies include box fill, conduit fill, voltage drop, Ampacity, types of rating, box size, grounding and bonding, equipment grounding conductors, and conduits. Installation competencies include box and conduit types, uses and fittings, NEC requirements, materials and uses, space clearance requirements for live parts and equipment, special equipment NEC Requirements, wire types and uses, ground wire sizing, wire protections, ground fault circuit interrupted for equipment, arc fault protections, equipment and requirements. Students learn wire size selection and calculation, electrical protection, fuses, breakers, internal overload, and the use of instruments such as Ohmmeter, AC clap-on ammeter and capacitance meter. The course also includes a review in electrical basic concepts, OHM's law application, and rules of safety.

ET004 Residential Wiring

(4 credits lecture, 2 credit lab= 80 clock hours)

At the end of this chapter the student will have learned the installation and requirements in the dwelling unit for receptacles, switches, fans, and lighting. The student will be able to understand the code requirements governing the receptacles' outlet for laundry areas, the National Fire Protection Association Standard (NEC) #74, and the general National Electrical Code requirements for the installation of residential smoke, heat, and security systems. The course also includes a review in electrical basic concepts, OHM's law application, and rules of safety.

ET005 Dwelling Units Calculations

(2 credits lecture, 3 credit lab= 80 clock hours)

At the end of this chapter the student will have learned the requirements of small appliances and laundry loads, household electrical range calculation, the optional calculation method, calculations of multi family dwelling unit circuits, branch circuits rating, feeders, ground and neutral calculations. The course also includes a review in electrical basic concepts, OHM's law application, and rules of safety.

ET006 Commercial Wiring

(4 credits lecture, 2 credit lab= 80 clock hours)

At the end of this chapter the student will have learned the commercial installation procedures, will be able to read plans, as well as understand and interpret specifications when the construction and repair is required. Competencies include branch circuit calculations and feeder motor loads, conductor's selection procedure, voltage drop, and the aluminum conductor's selection. The student will practice troubleshooting systems according with the NEC. The course also includes a review in electrical basic concepts, OHM's law application, and rules of safety.

ET007 Commercial Installations, Procedures and Requirements

(4 credits lecture, 2credit lab= 80 clock hours)

At the end of this chapter the student will have learned commercial installation procedures, equipment and materials as well as understand and be able to interpret specifications when the construction and repair is required. Competencies include NEMA configuration receptacles, motor overload protection, motor feeder and branch circuit calculations, special systems and equipment, lamps and luminaries used in commercial projects. The student will practice troubleshooting systems, and general configuration of fire alarm systems. The course also includes a review in electrical basic concepts, OHM's law application, and rules of safety.

ET008 Special Locations. Electrical Controls and Applications

(2 credits lecture, 3 credit lab= 80 clock hours)

At the end of this chapter the student will have learned to recognize hazardous locations, establish NEC requirements and safety rules. The course covers the review of commercial garages, gas stations, places of assembly, mobile homes, signs, elevators, information technology equipment, pools, emergency equipment, fire alarms circuits, and communications systems. Electrical controls competencies include circuits, equipment, and applications. Students learn how to follow a wiring diagram, NEC Requirements. The course also includes a review in electrical basic concepts, OHM's law application, and rules of safety.

ET009 Reading Blue Prints

(2 credits lecture, 3 credit lab= 80 clock hours)

At the end of this chapter the student will have learned to read a blue print. Competencies acquired by the student include the understanding of the different types of electrical drawings, electrical working drawings, layout of electrical drawings, electrical symbols, electrical specifications, building drawings such as plans, elevations, sections, and details. In addition, the student will be able to understand the different electrical wiring diagrams such as diagrammatic plan views showing individual building-circuit layouts, complete schematic diagrams showing all detail of connections and every wire in the circuit, one-line diagrams, and power-riser diagrams. The course also includes a review in electrical basic concepts, OHM's law application, and rules of safety.

Books

Residential Construction Academy Electrical Principles 2nd Edition
Electrical Wiring Commercial 15th Edition
National Electrical Code 2014 Edition
Residential Construction Academy House Wiring 3rd Edition

Requirements for Graduation

Students must complete 720 hours of theory, and lab/shop training with a minimum cumulative grade point average of a 2.0.

Requirements for Licensing

Passing test administrated by the Institution.

Diploma

After the completion of the program, the student receives a diploma providing that the final examination is approved and all requisites and financial obligations with the institution have been met.

Method of Payment

Full payment may be made in advance, at the beginning of the program, by mid-point of the program, or paid on a monthly basis arranged with the School office.

School Calendar for Air Conditioning/Refrigeration Technician & Electrical Technician 2024-2025

Start Date	Graduation Date
12-09-2024	08-14-2025
01-21-2025	09-25-2025
02-18-2025	10-23-2025
03-17-2025	11-20-2025
04-14-2025	12-18-2025
05-12-2025	01-15-2026
06-09-2025	02-12-2026
07-07-2025	03-12-2026
08-04-2025	04-09-2026
09-02-2025	05-07-2026
09-29-2025	06-04-2026
10-27-2025	07-02-2026
11-24-2025	07-30-2026
12-22-2025	08-27-2026