

NASSAU BOCES - ADULT EVENING PROGRAM  
Joseph M. Barry Career & Technical Education Center  
1196 Prospect Ave.  
Westbury, NY 11590

COURSE OUTLINE

Course Name:           **Trade Electric I – Residential I**  
Weeks:                 10  
Sessions:              20  
Hours                  60  
Days/Time             Mon/Wed 7-10pm  
Instructor:            Joe Nuzio  
Required Textbook:   Electrical Wiring-Residential 15<sup>th</sup> Ed.; Ray C. Mullen  
Prerequisites:         None (Student must provide some tools and materials-list provided)  
Adult evening Office: (516) 622-6950

Course Overview:

Instruction is given in layout symbols, wiring codes, basic electrical theory, low voltage systems and basic residential wiring. This is a Nassau BOCES **Green Certified** course.

Trade Electricity Certificate Program: Trade Electric Theory, Trade Electric I, Trade Electric II,  
Trade Electric III, Trade Electric IV, Minimum 270 hours.

Course Topics

Session 1     Introduction - Shop procedures, Course outline, Shop Safety, Tools and equipment  
Session 2     Electrical theory review  
Session 3     Line voltage wiring techniques.  
Session 4     Writing diagram, schematic drawings, color code.  
Session 5     Boxes, connectors & fittings.  
Session 6     Introduction to NEC Residential requirements.  
Session 7     Line voltage splicing & code requirements.  
Session 8     Type NM cable. NEC Requirements theory & practice.  
Session 9     Practical wiring, switches, receptacles, lighting.  
Session 10    Calculations- General lighting & small appliance branch circuits.  
Session 11    Three way switches. Layout theory & practice.  
Session 12    Equipment grounding.  
Session 13    Energy efficient lighting methods, theory & practice.\*  
                - CFL, ELD, Low Voltage, Computations vs. convention lighting.  
Session 14    Energy star appliances. Selection, comparisons & upgrades.\*  
                - Appliance rating, upgrading older appliances, conservation.  
Session 15    Old & new work procedures.  
Session 16    Safety techniques. Accident review & prevention.  
Session 17    Troubleshooting.  
Session 18-20 Additional topics and final exam.  
                - Recycling of materials, copper & aluminum.\*

\* *These topics are Green Technology compliant.*