

Tri-County Technical College
Electronics Engineering Technology Program/Industrial and Engineering Technology Division
Technical Advanced Placement (TAP) Program

Competency Verification and Teacher Recommendation Form

EET 113 (Electrical Circuits I)

SECTION I (To be completed by the student)

Please complete this section of the form and give it to your Electronics (Computer)/Electricity teacher.

(PLEASE PRINT)

Your Name: _____ Phone: _____

Address: _____ SSN: _____

City: _____ State: _____ Zip: _____

High School: _____ Grade: _____

SECTION II (To be completed by the teacher)

By placing my initials next to the appropriate competency statement listed on the back of this form, I verify this student has mastered major competencies of the EET 113 (Electrical Circuits I) course as defined in the approved syllabus dated January, 2001. I understand that in order to progress in the validation process for Technical Advanced Placement credit, a minimum of 75 percent of the competencies must be verified. Having met this requirement, I recommend this student be permitted to continue the validation process by completing the TAP exam, which I understand will be arranged through the Electronics Engineering Technology Program at Tri-County Technical College.

Teacher Name (*PLEASE PRINT*): _____

Signature: _____

Date: _____

Name of high school course(s) in which this student gained the required competencies for possible TAP advanced standing: _____

Date of course completion or expected completion: _____

Comments (if applicable): _____

Please make a copy of this form for your records and mail the original to Ms. Tonia McClain, Industrial and Engineering Technology Division Secretary, Tri-County Technical College, PO Box 587, Pendleton, SC 29670. (Questions regarding TAP procedures for EET 113 should be directed to Dr. Tim Brown, EET Program Coordinator, at 646-8361, extension 1404.)

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COMPETENCIES (please initial each one)

- ___1. Define: atom, electron, proton, neutron, current, joule, voltage, resistance, conductance, conductor, insulator, rheostat, potentiometer, short circuit, open circuit, power, Coulomb, volt, ohm, ampere, Sieman, watt; perform conversions within and between English and metric systems; plot Ohm's law.
- ___2. Define conventional current and electron flow, series and parallel circuit; calculate voltage, current and resistance in series and parallel circuits using Ohm's law, Kirchhoff's voltage and current laws, voltage and current divider rules, and open and short circuit.
- ___3. Define ladder and series-parallel network, series and shunt ohmmeter, branch and node; determine branch current and calculate node voltages.
- ___4. Define alternating current, amplitude, frequency, period, phase angle, sine, cosine; calculate primary and secondary voltages and currents for circuits containing transformers.
- ___5. Define capacitance, capacitor, self-inductance, inductor, capacitive time constant, inductive time constant, transient response; find mathematical expressions for the transient behavior of voltage and current in R-C and R-L circuits with a DC source.
- ___6. Define reactance; find mathematical expressions for the transient behavior of voltage and current in R-C and R-L circuits with an AC source.