

**El Paso Community College**  
**Syllabus**  
**Part II**  
**Official Course Description**

<b>SUBJECT AREA</b>	<u>Electrical Technology</u>
<b>COURSE RUBRIC AND NUMBER</b>	<u>ELPT 1319</u>
<b>COURSE TITLE</b>	<u>Fundamentals of Electricity I</u>
<b>COURSE CREDIT HOURS</b>	<u>3                    2                    :                    4</u> Credits                    Lec                    Lab

**I. Catalog Description**

Introduces basic direct current (DC) theory including electron theory and direct current applications. Introduces single and 3 phase circuits. Emphasizes commercial and industrial components and systems. (2:4). Lab fee.

**II. Course Objectives**

Upon satisfactory completion of this course, the student will be able to:

- A. Describe OSHA code compliance
- B. Describe DC voltage
- C. Calculate full volts, current, and resistance using Ohm's Law.
- D. Demonstrate basic wiring circuits.
- E. Create a simple circuit using pushbuttons, relays, and lights.
- F. Demonstrate the correct use of a digital multi meter and all associated materials and equipment.
- G. Maintain material and tool inventory.
- H. Demonstrate various wiring methods.
- I. Identify NEC requirements.

**III. THECB Learning Outcomes (WECM)**

- 1. Explain atomic structure and basic electrical values such as voltage, current, resistance, and power.
- 2. Calculate electrical values for series, parallel, and combination circuits.
- 3. Calculate voltage drop based on conductor length, type of material, and size.
- 4. Summarize the principles of magnetism; and utilize electrical measuring instruments.

**IV. Evaluation**

The students must demonstrate the knowledge and skills stated in the objective in order to complete the course. Letter grades will be arranged as follows:

Grade Scale:

90-100	A
80-89	B
70-79	C
60-69	D
0-59	F

Students should be able to compute their grade average anytime during the course. Missed assignments and make-up tests will be given at the discretion of the instructor.

**V. Disability Statement (Americans with Disabilities Act [ADA])**

EPCC offers a variety of services to persons with documented sensory, mental, physical, or temporary disabling conditions to promote success in classes. If you have a disability and believe you may need services, you are encouraged to contact the Center for Students with Disabilities to discuss your needs with a counselor. All discussions and documentation are kept confidential. Offices located: VV Rm C-112 (831-2426); TM Rm 1400 (831-5808); RG Rm B-201 (831-4198); NWC Rm M-54 (831-8815); and MDP Rm A-125 (831-7024).

**VI. 6 Drop Rule**

Students who began attending Texas public institutions of higher education for the first time during the Fall 2007 semester or later are subject to a 6-Drop limit for all undergraduate classes. Developmental, ESL, Dual Credit and Early College High School classes are exempt from this rule. All students should consult with their instructor before dropping a class. Academic assistance is available. Students are encouraged to see Counseling Services if dropping because exemptions may apply. Refer to the EPCC catalog and website for additional information.