

# 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>ENTC 2439</u>
<b>COURSE TITLE</b>	<u>Facility Operation and Maintenance II</u>
<b>COURSE CREDIT HOURS</b>	<u>4                    3                    3</u> Credits            Lec                    Lab

### I. Catalog Description

Provides a study of the requirements of building electrical systems, fire codes, lighting distribution, power sources, alarm systems, and interior and exterior communication. **Prerequisite: ENTC 2414. (3:3). Lab fee.**

### II. Course Objectives

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

- A. Navigate the National Electrical Code (NEC).
- B. Calculate the size of Transformers and associated equipment.
- C. Apply grounding and bonding principles pertaining to transformers.
- D. Calculate Voltage Drop.
- E. Identify dwelling circuit requirements using the NEC.
- F. Perform conduit fill calculations.
- G. Practice the basic safety procedures for working on electrical systems.
- H. Identify electrical system components.
- I. Describe and maintain alarm and communication systems.
- J. Define the project requirements from contract documents.
- K. Determine the required number of branch circuits for a set of loads.
- L. Determine the correct rating branch circuit loads and the preferred type of wire and size of the conductor for the branch circuit.
- M. Select the switches, receptacles, and raceways for the branch circuits.
- N. Determine the branch circuits for appliance and utilization equipment.
- O. Describe the basic structure of data, voice, and video system.

### III. THECB Learning Outcomes (WECM)

1. Evaluate electrical system components.
2. Evaluate alarm and communication system components.
3. Operate a computer-aided facility management system.

### 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:

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.

#### **VII. Title IX and Sex Discrimination**

Title 9 (20 U.S.C. 1681 & 34 C.F.R. Part 106) states the following "No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any educational program or activity receiving Federal financial assistance." The Violence Against Women Act (VAWA) prohibits stalking, date violence, sexual violence, and domestic violence for all students, employees and visitors (male and female). If you have any concerns related to discrimination, harassment, or assault (of any type) you can contact the Assistant to the Vice President for Student and Enrollment Services at 915-831-2655. Employees can call the Manager of Employee Relations at 915-831-6458. Reports of sexual assault/violence may also be reported to EPCC Police at 915-831-2200.